2673

ORDER NO. TSD-8006-665

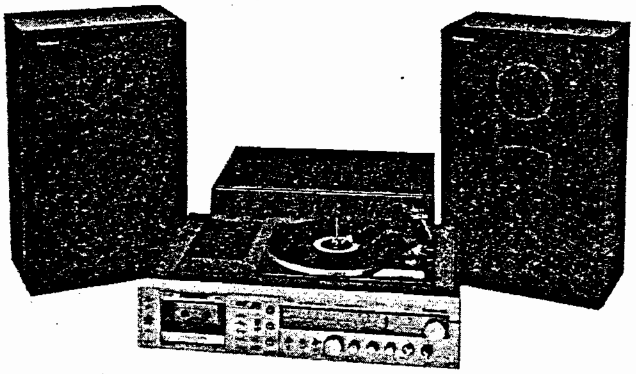
Service Manual

Stereo Music Center

FM/AM/FM STEREO RADIO WITH CASSETTE TAPE DECK AND RECORD CHANGER

Original

SE-4910/(E)



Specifications

AMPLIFIER SECTION

Power Output:	RMS 2 x 21W (THD 5%, 8 ohms)
Frequency Response:	40Hz ~ 30kHz, −3dB
Input Sensitivity & Impedance:	Mic; 2mV, 1.5k ohms Aux; 300mV, 50k ohms
Tone Control:	Bass; ±10dB at 100Hz Treble ±10dB at 10kHz
Loudness Control:	+7dB at 100Hz, +3dB at 10kHz (Volume at −30dB position)

FM TUNER SECTION

Frequency Range:	88MHz ~ 108MHz
Intermediate Frequency (IF):	10.7MHz
Sensitivity:	3μV (S/N 26dB, MOD. 30%)
Image Ratio:	38dB (98MHz)
Signal/Noise Ratio:	60dB (at 1kHz, 60dB, MOD. 30%)
Distortion:	Mono; 0.3% (at 1kHz, 60dB, MOD. 30%) Stereo: 0.5% (at 1kHz, 60dB, MOD. 30%)
Stereo Separation:	35dB (at 1kHz, 60dB, MOD. 30%)
Selectivity:	55dB (at 1kHz, 60dB, 40kHz)

AM TUNER SECTION

Frequency Range:	525 ~ 1,605kHz (571 ~ 187m)
Intermediate Frequency (IF):	455kHz
Sensitivity:	100μV/m (1MHz) for 50mW
Image Ratio:	38dB (1MHz)

RECORD PLAYER SECTION

Turntable System:	Rim-Drive, Full Auto-Changer
Turntable Size:	28cm (11")
Turntable Speed:	2-speed; 33-1/3, 45 rpm
Wow & Flutter:	0.3 % (WRMS)
Phono Motor:	DC Motor
Cartridge:	Moving Magnet (EPC-75SMCD)
Stylus:	Diamond (EPS-75STCSD)
Stylus Pressure:	3g ~ 4g
Frequency Response:	20Hz ~ 18kHz
Separation:	15dB (DIN)
Signal/Noise Ratio:	−50dB (DIN-B)

CASSETTE DECK SECTION

Deck System:	Full Auto-Stop, Auto-Reverse Full Logic Solencid Control Mechanism	
Track System:	4-Track, 2-Channel	
Recording System:	AC Bias (50kHz)	
Erasing System:	AC Erase (50kHz)	
Tape Speed:	4.75cm/sec. (1-7/8 ips)	
Frequency Response:	Normal;	70Hz ~ 12kHz
	CrO2;	70Hz ~ 14kHz
	Metal;	70Hz ~ 15kHz
Wow & Flutter:	0.1% (WRMS)	
Signal/Noise Ratio:	Normal;	53dB
	CrO2;	55dB
	Metal;	57dB

SPEAKER SYSTEM

Configuration:	2-Way	
Speaker Unit:	Woofer;	20cm (8")
	Tweeter;	5cm (2-1/2")
Impedance:	8 ohms	

GENERAL

Power Supply:	AC; 110V, 120V, 220V, 240V, 50/60Hz
Power Consumption:	130W
Dimensions (W x H x D):	
Center Unit.	590mm x 245mm x 434mm (23-1/4")(9-21/32")(17-31/32")
Speaker Box (each)	343mm x 556mm x 225mm (13-1/2")(21-7/8")(8-7/8")
Weight:	
Center Unit	12.6kg (28 lb 12 oz)
Speaker Box (each)	5.5kg (12 lb 2 oz)

*Specifications are subject to change without notice for further improvement.

Panasonic

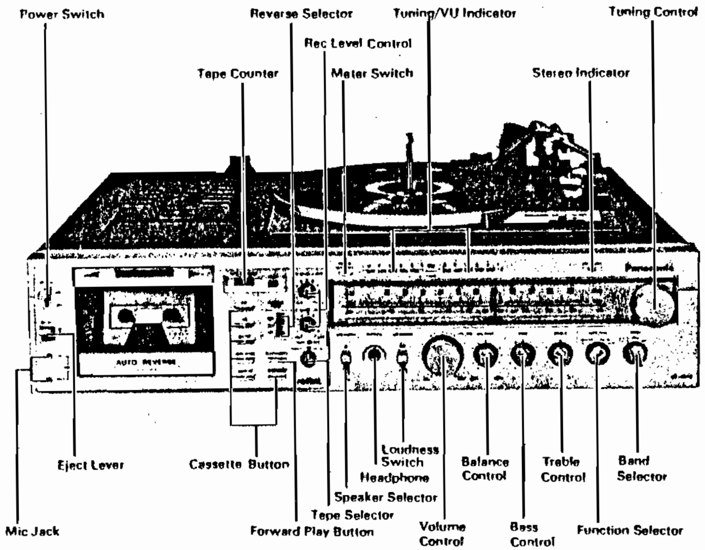
Matsushita Electric Industrial Co., Ltd.
1-2, 1-chome, Shiba-Koen, Minato-ku, Tokyo 105, Japan

2673

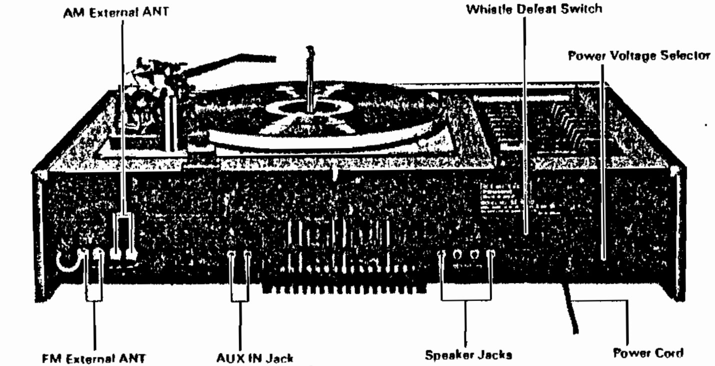
CONTENTS

OCATION OF CONTROLS 2
ISASSEMBLY INSTRUCTIONS 3
LIGNMENT INSTRUCTIONS (RADIO) 4, 5
LIGNMENT POINTS (RADIO) 6
IAL CORD STRINGING GUIDE 6
LIGNMENT INSTRUCTIONS (TAPE DECK) 7
LIGNMENT POINTS (TAPE DECK) 7
EPLACEMENT PARTS LIST . . . . 8 ~ 12, 16, 17
CHEMATIC DIAGRAM 13
CIRCUIT BOARD AND WIRING CONNECTION 14
IC BLOCK DIAGRAM 15
REPLACEMENT PARTS LIST OF CABINET AND CHASSIS . . 18
PARTS LOCATION OF CABINET AND CHASSIS 19
REPLACEMENT PARTS LIST OF CASSTTE TAPE DECK . . . 20
EXPLODED VIEW OF CASSETTE TAPE DECK 21
REPLACEMENT PARTS LIST OF RECORD CHANGER 22
EXPLODED VIEW OF RECORD CHANGER 23
BLOCK DIAGRAM 24

LOCATION OF CONTROLS



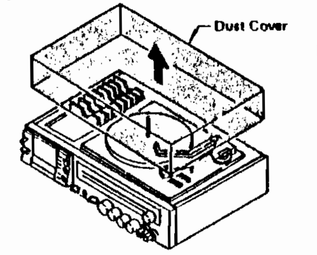
Power Switch
Reverse Selector
Tuning/VU Indicator
Tuning Control
Rec Level Control
Tape Counter
Meter Switch
Stereo Indicator
AUTO REVERSE
Eject Lever
Cassette Button
Loudness Switch
Headphone
Balance Control
Treble Control
Band Selector
Speaker Selector
Tape Selector
Mic Jack
Forward Play Button
Volume Control
Bass Control
Function Selector



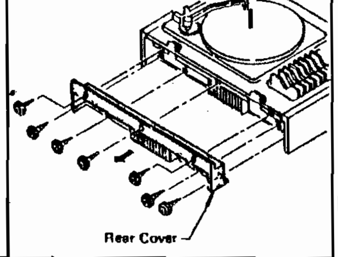
AM External ANT
Whistle Defeat Switch
Power Voltage Selector
FM External ANT
AUX IN Jack
Speaker Jacks
Power Cord

DISASSEMBLY INSTRUCTIONS

❶ Remove Dust Cover

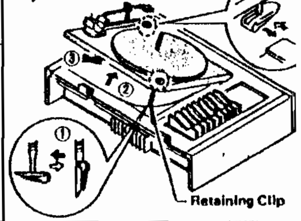


❷ Remove Rear Cover



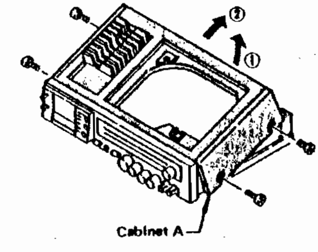
❸ Remove Record Changer

⇨ REMOVE
➡ RE-INSTALL



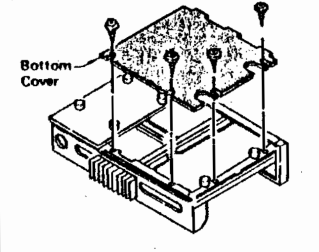
③
②
①
Retaining Clip

❹ Remove Cabinet



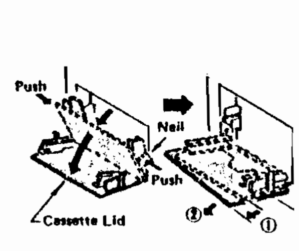
②
①
Cabinet A

❺ Remove Bottom Cover



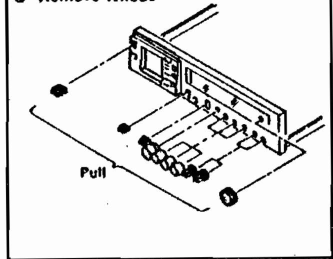
Bottom Cover

❻ Remove Cassette Lid

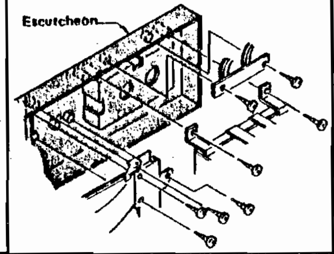


Push
Nail
Push
Cassette Lid
②
①

❼ Remove Knobs

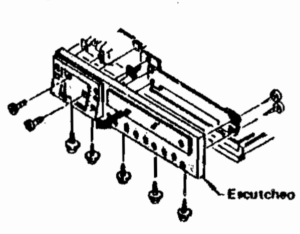


❽ Remove Escutcheon-1



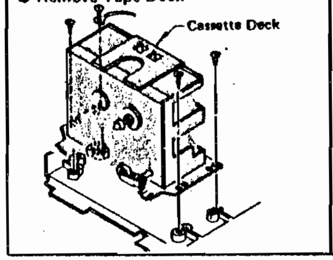
Escutcheon

❾ Remove Escutcheon-2 and Wire Holder



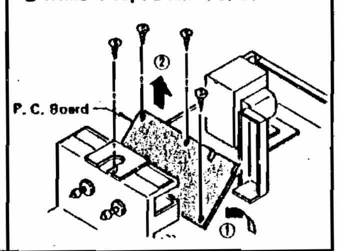
Escutcheon

❿ Remove Tape Deck



Cassette Deck

⓫ Remove Tape Deck P. C. Board



- **To Replace Parts on P. C. Board**
  - **Radio** . . . . Refer to ❶ , ❷ , ❹ , ❺ .
  - **Tape Deck** . . . . Refer to ❶ , ❷ , ❹ , ⓫ .
- **To Remove Record Changer** . . . . Refer to ❶ , ❷ , ❸ .
- **To Remove Escutcheon** . . . . Refer to ❶ , ❷ , ❹ , ❼ ~ ❾ .
- **To Remove Tape Deck** . . . . Refer to ❶ , ❷ , ❹ , ❼ ~ ❿ .
- **To Replace Cassette Lid** . . . . Refer to ❻ .

ALIGNMENT INSTRUCTIONS

AM IF and RF Alignment

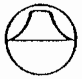
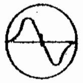
Control Positions:

1. Volume Control. . . . . Maximum (AM-IF and RF, FM-RF); Minimum (FM-IF)
2. Treble Control. . . . . Center
3. Bass Control . . . . Center
4. Balance Control . . . . Center
5. Function Selector. . . . . Radio
6. Power Switch . . . . ON
7. Speaker Switch . . . . A
8. Loudness. . . . . OFF
9. Band Selector . . . . AM, AM AUTO, FM MONO
10. Output of signal generator should be no higher than necessary to obtain output reading.
11. Make certain that speaker system is connected to the receiver when aligning. (or use 8 Ω dummy load resistors).

STEP	SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (VTVM or SCOPE)	ADJUST	REMARKS
	CONNECTION	FREQUENCY				
			AM-IF AND RF ALIGNMENT			
1	Fashion loop of several turns of wire and radiate signal into loop of receiver.	455 kHz 30% Mod. with 400 Hz	Point of non-interference (on/about 600 kHz)	Output meter across speaker jack (L)	T201 (AM 1st IFT) T202 (AM CFT) T203 (AM 3rd IFT)	Adjust for maximum output.
2		550 kHz 30% Mod. with 400 Hz	550 kHz (19.1 mm)		L1 (ANT Coil) • L202 (OSC Coil)	Adjust for maximum output by sliding coil L1 along ferrite core. • Refer to Note.
3		1500 kHz 30% Mod. with 400 Hz	1500 kHz (158.4 mm)		CT207 (ANT Trimmer) CT208 (OSC Trimmer)	Adjust for maximum output. Repeat steps (2) and (3).

Note: Cement antenna coil with wax after completing alignment.

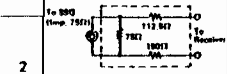
FM IF and RF Alignment

STEP	SIGNAL GENERATOR SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (VTVM or SCOPE)	ADJUST	REMARKS
	CONNECTION	FREQUENCY				
			FM-IF AND DETECTOR ALIGNMENT			
1	High side through 1 pF between point TP101 and TPE (Earth).	10.7 MHz (400 kHz SWP.)	Point of non-interference (on/about 98 MHz)	Connect vert. amp. input of scope between point TP102 and TP103 (Earth).	T101 (FM 1st IFT) T204 (FM Disc. IFT) • Refer to Note.	Adjust T101 and T204 for maximum amplitude and symmetrical curve. 
2					T205 (FM Disc. IFT)	Adjust for maximum amplitude and proper linearity between about ±100 kHz markers. 

Note: Before aligning step 1, turn the cores of T205 fully counterclockwise.

ALIGNMENT INSTRUCTIONS

FM IF and RF Alignment

STEP	SIGNAL GENERATOR SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (VTVM or SCOPE)	ADJUST	REMARKS
	CONNECTION	FREQUENCY				
			FM-RF ALIGNMENT			
1	Connect to EXT. FM antenna terminal through Dummey antenna. Common to chassis.  DUMMY ANTENNA	90 MHz 30% Mod. with 400 Hz	90 MHz (22.5 mm)	Output meter across speaker jack (L) (Imp. 8Ω)	L101 (FM ANT Coil) L102 (FM DET Coil) L103 (FM OSC Coil)	Adjust for maximum output.
2		106 MHz 30% Mod. with 400 Hz	106 MHz (149.1 mm)		CT101 (FM ANT Trimmer) CT102 (FM DET Trimmer) CT103 (FM OSC Trimmer)	Adjust for maximum output. Repeat steps (1) and (2).

Note: 1. As three output readings will be present, adjustments must be made at center frequency.
2. To correct the drift of FM band coverage (87.5 ~ 108 MHz), adjust the coil L103 and the trimmer CT103.

FM Stereo Alignment

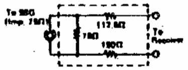
FREE RUNNING ALIGNMENT

Control Positions:
Volume Control. . . . . Audible level of speaker sound
Treble Control. . . . . MIN
Bass Control . . . . Center
Band Selector . . . . FM AUTO
Balance Control . . . . Center

EQUIPMENT CONNECTION	ADJUST	REMARKS
Connect frequency counter to TP301 and TP103 (Earth) at 98 MHz, 1kHz 30% modulation 60 dB input. (Mono Signal)	VR301	Adjust VR301 for 19 kHz ± 100 Hz on frequency counter reading.

SEPARATION ALIGNMENT

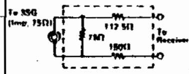
Control Positions:
1. Stereo Modulator: Connect Stereo Modulator to EXT. Mod. terminal of signal generator.
2. Signal Generator: Modulation Rate of 19 kHz Pilot Signal 9%
Modulation Rate of Right and Left Signal . . . . . 30 %(1kHz)
Output Level . . . . 60 dB
3. Tuner (Balance Control): Adjust balance control so that output level from both channels becomes equal.

EQUIPMENT CONNECTION			ADJUST	REMARKS
SIGNAL GENERATOR	VTVM	OSCILLOSCOPE		
Connect to EXT. FM antenna terminal through dummy antenna.  DUMMY ANTENNA	Connect across speaker jack. (Imp. 8 Ω)	Connect vertical amp. input of scope to terminals of VTVM.	VR302 (Separation Control)	Adjust VR302 for minimum indication of VTVM from the left side output when the right side of stereo modulator is modulated. Adjust VR302 in the same way for the right side. Adjust for best balance between "L to R" and "R to L" separation.

Note: When aligning separation, disconnect frequency counter.

ALIGNMENT INSTRUCTIONS

- **FM IF and RF Alignment**

STEP	SIGNAL GENERATOR SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (VTVM or SCOPE)	ADJUST	REMARKS
	CONNECTION	FREQUENCY				
	FM-RF ALIGNMENT					
1	Connect to EXT. FM antenna terminal through Dummey antenna. Common to chassis.	90 MHz 30% Mod. with 400 Hz	90 MHz (22.5 mm)	Output meter across speaker jack (L) (Imp. 8Ω)	L101 (FM ANT Coil) L102 (FM DET Coil) L103 (FM OSC Coil)	Adjust for maximum output.
2	 To SSG (Imp. 75Ω) 112.5Ω 75Ω 150Ω To Receiver DUMMY ANTENNA	106 MHz 30% Mod. with 400 Hz	106 MHz (149.1 mm)		CT101 (FM ANT Trimmer) CT102 (FM DET Trimmer) CT103 (FM OSC Trimmer)	Adjust for maximum output. Repeat steps (1) and (2).

Note: 1. As three output readings will be present, adjustments must be made at center frequency.
2. To correct the drift of FM band coverage (87.5 ~ 108 MHz), adjust the coil L103 and the trimmer CT103.

- **FM Stereo Alignment**

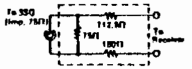
FREE RUNNING ALIGNMENT

Control Positions:
Volume Control . . . . Audible level of speaker sound
Treble Control. . . . . MIN
Bass Control . . . . Center
Band Selector . . . . FM AUTO
Balance Control . . . . Center

EQUIPMENT CONNECTION	ADJUST	REMARKS
Connect frequency counter to TP301 and TP103 (Earth) at 98 MHz, 1kHz 30% modulation 60 dB input. (Mono Signal)	VR301	Adjust VR301 for 19 kHz ± 100 Hz on frequency counter reading.

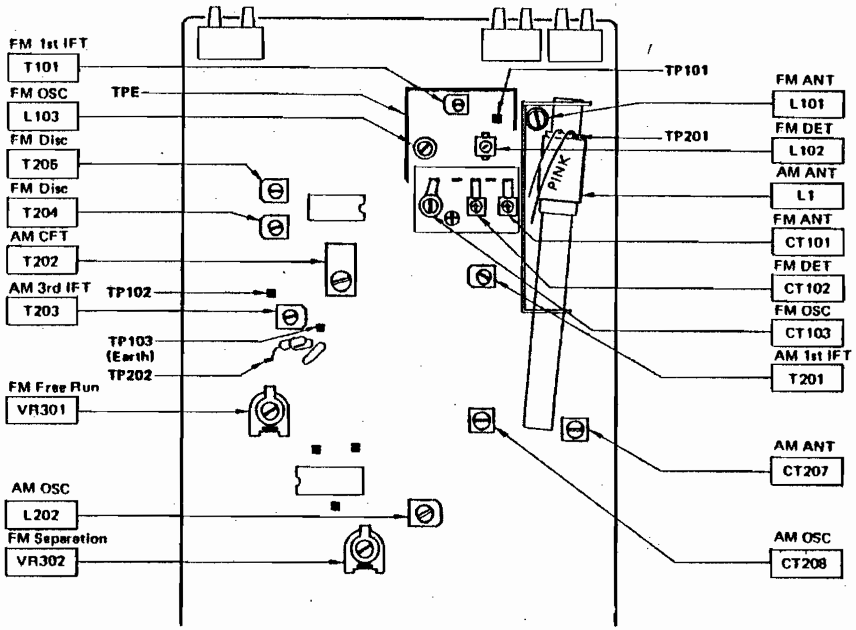
SEPARATION ALIGNMENT

Control Positions:
1. Stereo Modulator: Connect Stereo Modulator to EXT. Mod. terminal of signal generator.
2. Signal Generator: Modulation Rate of 19 kHz Pilot Signal 9%
Modulation Rate of Right and Left Signal . . . . . 30%(1kHz)
Output Level . . . . 60 dB
3. Tuner (Balance Control): Adjust balance control so that output level from both channels becomes equal.

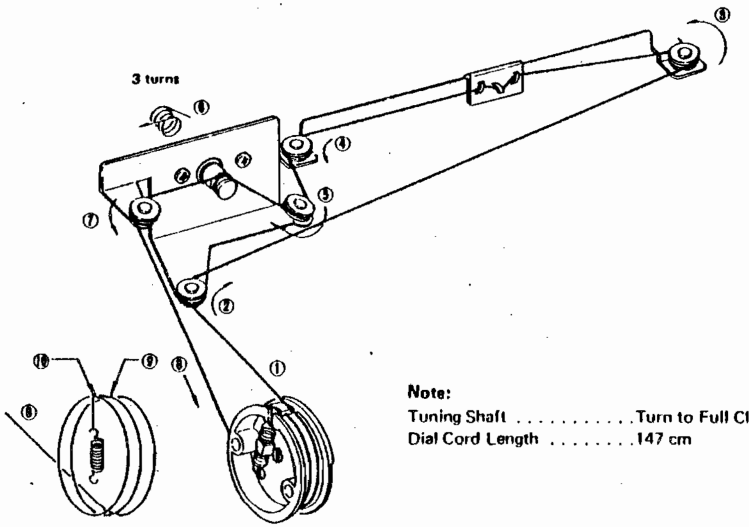
EQUIPMENT CONNECTION			ADJUST	REMARKS
SIGNAL GENERATOR	VTVM	OSCILLOSCOPE		
Connect to EXT. FM antenna terminal through dummy antenna.  To SSG (Imp. 75Ω) 112.5Ω 75Ω 150Ω To Receiver DUMMY ANTENNA	Connect across speaker jack. (Imp. 8 Ω)	Connect vertical amp. input of scope to terminals of VTVM.	VR302 (Separation Control)	Adjust VR302 for minimum indication of VTVM from the left side output when the right side of stereo modulator is modulated. Adjust VR302 in the same way for the right side. Adjust for best balance between "L to R" and "R to L" separation.

Note: When aligning separation, disconnect frequency counter.

ALIGNMENT POINTS(RADIO)


FM 1st IFT
T101
FM OSC
L103
FM Disc
T205
FM Disc
T204
AM CFT
T202
AM 3rd IFT
T203
FM Free Run
VR301
AM OSC
L202
FM Separation
VR302
TPE
TP102
TP103 (Earth)
TP202
TP101
TP201
PINK
FM ANT
L101
FM DET
L102
AM ANT
L1
FM ANT
CT101
FM DET
CT102
FM OSC
CT103
AM 1st IFT
T201
AM ANT
CT207
AM OSC
CT208

DIAL CORD STRINGING GUIDE


3 turns
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩

Note:
Tuning Shaft . . . . Turn to Full Clo
Dial Cord Length . . . . 147 cm

ALIGNMENT INSTRUCTIONS
CASSETTE TAPE DECK

- **Tape Deck Alignment**

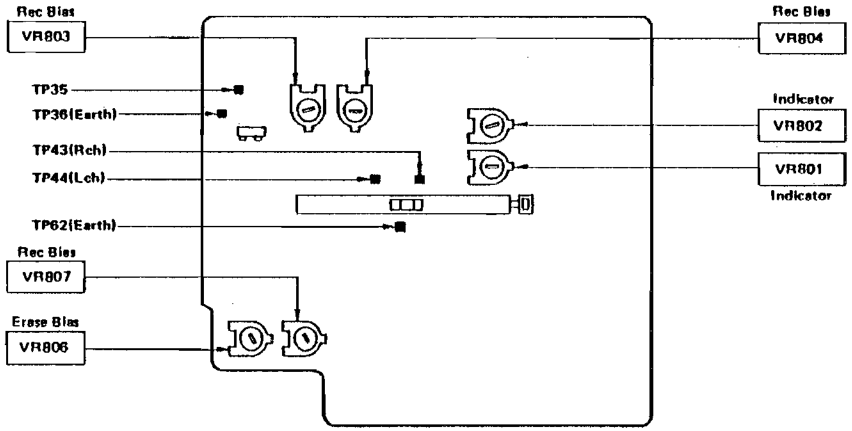
Control Positions:
1. Tape Deck . . . . Recording Condition.

STEP	ALIGNMENT ITEM	VTVM CONNECTION		TAPE SELECTOR	ADJUST	REMARKS
		Positive	Negative			
1	Erase Bias	TP35	TP36	METAL	VR806	· Adjust VR803 and VR804 center. · Adjust VR806 to get 240 ±10 mV reading on VTVM.
2	Recording Bias	TP44 (L-Channel)	TP62	METAL	VR803 VR804	· Adjust VR803 and VR804 to get 9.5 ±0.2 mV reading on VTVM. · Repeat Steps 1 ~ 2
		TP43 (R-Channel)	TP62			
3	Recording Bias	TP44 (L-Channel)	TP62	CrO2	VR807	· Adjust VR807 to get 4.5 ±0.2 mV reading on VTVM.
		TP43 (R-Channel)	TP62			

AZIMUTH AND LEVEL INDICATOR ALIGNMENT

STEP	ALIGNMENT ITEM	VTVM CONNECTION		TAPE DECK CONOITON	ADJUST	REMARKS
		Positive	Negative			
1	R/P Head Azimuth	Speaker	Speaker	PLAY	R/P Head Screw	· Playback a test tape (VTT653). · Turn R/P Head Screw to get max. output of speaker.
2	Level Indicator	——	——	PLAY	VR801	· Playback a test tape (VTT665). · Adjust VR801 and VR802 to light between –20 VU to 0 VU.
		——	——		VR802	

ALIGNMENT POINTS(CASSETTE TAPE DECK)



REPLACEMENT PARTS LIST

NOTE:
1. Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.
2. Parts No. listed in this Parts List are of Service Parts.

Ref. No.	Part No.	Description	Per Set (pcs.)
TRANSISTORS			
Q101	2SK49	FM RF Amp	1
Q102	2SC1675-L	FM Mix	1
Q103	2SC1675-L	FM OSC	1
Q201	2SC1854	AM Conv	1
Q202	2SC1684	Tuning Amp	1
Q203	2SC1684	Switching	1
Q301	2SC945	Switching	1
Q401, 402	2SC1684	Muting	2
Q403, 404	2SC1684	Rec Amp	2
Q405, 406	2SC1684	Rec Amp	2
Q415, 416	2SC1327	EQ/Mic Amp	2
Q417, 418	2SC1327	EQ/Mic Amp	2
Q419, 420	2SC1684	Muting	2
Q427	2SC1684	Muting	1
Q501, 502	2SC1222	1st AF Amp	2
Q503, 504	2SC1222	2nd AF Amp	2
Q800, 801	2SC1684	Auto Stop Cont., Muting	2
Q802, 803	2SC1684	Muting	2
Q804, 805	2SC1684	Switching	2
Q806	2SC1684	Switching	1
Q807	2SA666A1-R	LED Switching	1
Q810, 811	2SC1684	Muting, Motor Cont.	2
Q812	2SC1847	Rec Plunger Switching	1
Q813	2SC1685	Deck Plunger Switching	1
Q814	2SC1847	Deck Plunger Switching	1
Q815	2SC1318	Deck Plunger Switching	1
Q816, 817	2SC1685	Deck Plunger Switching	2
Q818	2SC1847	Deck Plunger Switching	1
Q819	2SC1318	Deck Plunger Switching	1
Q820, 821	2SC1685	Deck Plunger Switching	2
Q822	2SC1847	Deck Plunger Switching	1
Q823	2SC1318	Deck Plunger Switching	1
Q824	2SC1685	Deck Plunger Switching	1
Q825, 826	2SC1317	Lamp Driver	2
Q827, 828	2SC1684	Lamp Driver	2
Q831	2SC1317	Motor Switching	1
Q832	2SC1684	P.B Head Switching	1
Q833, 834	2SC1317	P.B Head Switching	2
Q835, 836	2SC1383NC-Q	Erase OSC	2
Q837	2SC1684	Rec Plunger Switching	1
Q901	2SC1383	Stabilizer	1
Q902	2SC1383NC-Q	Stabilizer	1

Ref. No.	Part No.	Description	Per Set (pcs.)
INTEGRATED CIRCUITS			
IC201	AN271	FM/AM IF Amp	1
IC301	LA3350S	FM MPX	1
IC401, 402	LB1416	LED Driver	2
IC601	M51521L	Phono EQ Amp	1
IC701	STK459	Power Amp	1
IC801, 802	UPD4001	NOR Gate	2
IC803, 804	UPD4011	NAND Gate	2
IC805	UPD4069	INV Gate	1
IC806	BA685	LED Drive	1
IC807	BA843	Deck Control	1
IC808	UPC78L05	Stabilizer	1
DIODES			
D101, 102	MA150	FM AGC	2
D103	RVDSD113	FM AFC	1
D201, 202	2OA90	FM AGC	2
D203	2OA90	AM DET	1
D206	2OA90	AM Rect	1
D207	MA27A2	AOC	1
D208	MA150	Switching	1
D301	MA150	Switching	1
D302	SLP1566	FM Stereo IND	1
D801, 802	MA150	Switching	2
D803	MA150	Surge Protector	1
D804, 805	2OA90	Switching	2
D807	2OA90	Switching	1
D808	2OA90	Switching	1
D809, 810	MA150	Switching	2
D811, 812	MA150	Switching	2
D813, 814	MA150	Switching	2
D815, 816	MA150	Switching	2
D817, 818	MA150	Switching	2
D819, 820	MA150	Switching	2
D821, 822	MA150	Switching	2
D823, 824	MA150	Switching	2
D825, 826	MA150	Switching	2
D827, 828	MA150	Switching	2
D829, 830	MA150	Switching	2
D831	MA150	Switching	1
D832	2OA90	Switching	1
D833, 834	MA150	Switching, Surge Prot.	2
D835, 836	MA150	Surge Protector	2
D837, 838	LN38GP	Deck OP IND	2
D839, 840	LN38GP	Deck OP IND	2
D841	LN38GP	Deck OP IND	1
D842, 843	LN28RP	Deck OP IND	2
D844, 845	LN28RP	Deck OP IND	2
D846	LN28RP	Deck OP IND	1

REPLACEMENT PARTS LIST

Ref. No.	Part No.	Description	Per Set (pcs.)
D847	SLP1568	LED Meter	1
D848, 849	SLP2568	LED Meter	2
D850, 851	SLP2568	LED Meter	2
D852	SLP1568	LED Meter	1
D853, 854	SLP2568	LED Meter	2
D855, 856	SLP2568	LED Meter	2
D860	S2V20F	Damper	1
D861	2OA90	Switching	1
D862, 863	MA150	Switching	2
D864	MA150	Switching	1
D865	MA161	Switching	1
D866, 867	MA150	Switching	2
D868, 869	MA150	Damper	2
D870	SM112	Damper	1
D871	VD1223	Stabilizer	1
D872	MA150	Switching	1
D873	VD1223	Stabilizer	1
D874	MA150	Switching	1
D875	MA161	Switching	1
D901	MA1160	Stabilizer	1
D902	MA1160	Stabilizer	1
D905	SM112	Rect	1
D906	SIRBA10	Rect	1
D907	S4V810	Rect	1
LAMPS AND FUSE			
Fuse 901 ⚠	XBA2C20TR0	Fuse 250V T2A	1
PL1 ⚠	XAMR54T	Lamp 12V 380mA	1
PL801, 802 ⚠	XAMR53X500	Lamp	2
AR201	XANR2T20T	Arrestor	1
COILS AND TRANSFORMERS			
L1, 2	SLF2D42-0	Ant Coil, FM	2
L101	SLA4N2-0	Ant Coil, AM	1
L102	SLD4N22-M	Coll Coil, FM	1
L103	SLO4P12-2P	OSC Coil, FM	1
L104, 105	SLQY11G-2	IF Coil	2
L106	SLQY11G-2	IF Coil	1
L202	SL02M4-M	OSC Coil, MW	1
L205	SLQX250-Y	REC Coil	1
L401, 402	SLQU222-2Y	Coil	2
L403, 404	SLQ383D599G	Choke Coil	2

Ref. No.	Part No.	Description	Per Set (pcs.)
L801, 802	SLQU270-2K	Choke Coil	2
L803	SL09Z42-K	Coil	1
L901, 902	SLQY35S-2S	RFC Coil	2
T1 ⚠	SLT5N56-W	Power Trans	1
T101	RLI4M101	IFT, FM 1st	1
T201	SLI2M102	IFT, AM 1st	1
T202	RLI7V102	CFT, AM	1
T203	RLI2M402	IFT, AM 3rd	1
T204	RLI4M501	FM Disc	1
T205	RL14M502	FM Disc	1
CF201, 202	SVF107MAVT	CFT, FM	2
COMPONENT COMBINATIONS			
Z201	EXA5DL04C	C-R	1
Z202	EXAF203Z471	C-R	1
Z901, 902	EXRFS203ZS	C-R	2
VARIABLE RESISTORS			
VR301	EVTS3MA00B53	Preset 3kΩ B	1
VR302	EVTS3MA00B13	Preset 1kΩ B	1
VR401, 402	EVH2AA545A24	Volume 20kΩ A	2
VR501, 502	EWK9HA085A54	Bass 50kΩ A	2
VR503, 504	EWK9HA085A54	Treble 50kΩ A	2
VR505, 506	EWKKAA096A54	Volume 50kΩ A	2
VR507	EVH1UA505G54	Balance 50kΩ G	1
VR801, 802	EVTS3MA00B14	Preset 10kΩ B	2
VR803, 804	EVTS3MA00B15	Preset 100kΩB	2
VR806	EVTS3MA00B14	Preset 10kΩ B	1
VR807	EVTS3MA00B24	Preset 20kΩ B	1
VARIABLE CAPACITORS			
CV101, 102 103, 201 202 (CT101,102 103,207,208)	ECV5MD34X71Q	Variable Capacitor with Trimmer	1

REPLACEMENT PARTS LIST

Ref. No.	Part No.	Description	Per Set (pcs.)
SWITCHES			
S1 ⚠	ESL2174T	Power	1
S2 ⚠	SSP36	Power Voltage	1
S501-1, -2	ESL36208	Loudness	1
S7	SSS96	Whistle Defeat	1
S701-1, -2	SSL48	Speaker	1
S8	AH3222	Cassette Cover	1
S601-1 ~ 3	ESRM163F30C	Tape Selector	1
S602	SSH130	Meter	1
S803	SSL64	Tape Mode	1
S804-1 ~ 7	SSP54	Deck Operation	7
ST1 ~ 12	ESD81557	Rec/Play Selector	1
SF1 ~ 4	SSR118	Function Selector	1
SB1 ~ 12	SSR136	Band Selector	1
SL4	SMQ3260	Plunger	1
RL1,2	SSY6-2	Relay	2
PACKING			
PC1	SPN4204	Carton Box	1
PC2	SPN4206	Pad	1
PC3	SPN4208	Pad, Dust Cover	1
PC4	SPN4210	Pad, Upper	1
PC5	XZB83X80C05	Set Cover	1
OTHERS			
	SQX60232	Instruction Book	1

Numbering System of Resistor

Type	Wattage	Tolerance	Value
Three Letters	One or Two Letters	Two or Three Letters	Three or F Letters

Example:

E R D 2 5 T J 1 0 1

Resistor Type	Toleren
ERD: Carbon Film ERC: Solid ERX: Metal Film ERG: Metal Oxide Film ERO: High Stability Metal Film ERF: Flameproof Wire-Wound Bath-Tube ERQ: Fuse Type Metal Film	F: ±1% J: ±5% K: ±10%

Ref. No.	Part No.	Description	
RESISTORS			
R101	ERD25FJ102	1kΩ	1/4W
R102	ERD25TJ104	100kΩ	1/4W
R103	ERD25FJ100	10Ω	1/4W
R104	ERD25FJ681	680Ω	1/4W
R105	ERD25FJ152	1.2kΩ	1/4W
R106	ERD25TJ333	33kΩ	1/4W
R107	ERD25FJ102	1kΩ	1/4W
R108	ERD25FJ682	6.8kΩ	1/4W
R109	ERD25FJ472	4.7kΩ	1/4W
R110	ERD25FJ102	1kΩ	1/4W
R111, 112	ERD25TJ224	220kΩ	1/4W
R113	ERD25TJ474	470kΩ	1/4W
R114	ERD25FJ471	470Ω	1/4W
R115	ERD25FJ221	220Ω	1/4W
R117	ERD25TJ123	12kΩ	1/4W
R201	ERD25TJ333	33kΩ	1/4W
R202	ERD25FJ332	3.3kΩ	1/4W
R203	ERD25FJ103	10kΩ	1/4W
R204	ERD25FJ470	47Ω	1/4W
R207	ERD25FJ152	1.5kΩ	1/4W
R208	ERD25FJ101	100Ω	1/4W
R209	ERD25TJ153	15kΩ	1/4W
R210	ERD25FJ332	3.3kΩ	1/4W
R211	ERD25FJ152	1.5kΩ	1/4W
R213	ERD25FJ470	47Ω	1/4W
R214	ERD25TJ684	680kΩ	1/4W
R215	ERD25FJ101	100Ω	1/4W
R216	ERD25FJ472	4.7kΩ	1/4W
R217	ERD25FJ470	47Ω	1/4W
R218	ERD25TJ333	33kΩ	1/4W
R220	ERD25FJ470	47Ω	1/4W
R221	ERD25FJ682	6.8kΩ	1/4W
R222	ERD25FJ221	220Ω	1/4W
R223, 224	ERD25FJ102	1kΩ	1/4W

REPLACEMENT PARTS LIST

Ref. No.	Part No.	Description	Per Set (pcs.)
R225	ERD25FJ681	680Ω 1/4W	1
R226	ERD25TJ104	100kΩ 1/4W	1
R227	ERD25TJ333	33kΩ 1/4W	1
R228	ERD25TJ334	330kΩ 1/4W	1
R229	ERD25TJ473	47kΩ 1/4W	1
R230	ERD25TJ104	100kΩ 1/4W	1
R231	ERD25TJ473	47kΩ 1/4W	1
R236	ERD25FJ103	10kΩ 1/4W	1
R238	ERD25FJ103	10kΩ 1/4W	1
R240	ERD25TJ473	47kΩ 1/4W	1
R241	ERD25FJ471	470Ω 1/4W	1
R242	ERD25FJ221	220Ω 1/4W	1
R243	ERD25TJ104	100kΩ 1/4W	1
R244	ERD25TJ223	22kΩ 1/4W	1
R301	ERD25FJ682	6.8kΩ 1/4W	1
R302	ERD25FJ332	3.3kΩ 1/4W	1
R303, 304	ERD25FJ392	3.9kΩ 1/4W	2
R305, 306	ERD25FJ682	6.8kΩ 1/4W	2
R307, 308	ERD25FJ472	4.7kΩ 1/4W	2
R309, 310	ERD25FJ103	10kΩ 1/4W	2
R311	ERD25FJ103	10kΩ 1/4W	1
R401, 402	ERD25TJ333	33kΩ 1/4W	2
R403	ERD25FJ1R0	1Ω 1/4W	1
R404	ERD25FJ103	10kΩ 1/4W	1
R405, 406	ERD25FJ102	1kΩ 1/4W	2
R407, 408	ERD25TJ474	470kΩ 1/4W	2
R409, 410	ERD25FJ222	2.2kΩ 1/4W	2
R411, 412	ERD25FJ222	2.2kΩ 1/4W	2
R413, 414	ERD25FJ330	33Ω 1/4W	2
R415, 416	ERD25FJ332	3.3kΩ 1/4W	2
R417, 418	ERD25TJ684	680kΩ 1/4W	2
R419, 420	ERD25FJ681	680Ω 1/4W	2
R421, 422	ERD25FJ100	10Ω 1/4W	2
R423, 424	ERD25FJ102	1kΩ 1/4W	2
R425, 426	ERD25FJ471	470Ω 1/4W	2
R427, 428	ERD25FJ152	1.5kΩ 1/4W	2
R429, 430	ERD25FJ103	10kΩ 1/4W	2
R431, 432	ERD25FJ102	1kΩ 1/4W	2
R435, 436	ERD25FJ100	10Ω 1/4W	2
R443, 444	ERD25TJ104	100kΩ 1/4W	2
R445, 446	ERD25FJ103	10kΩ 1/4W	2
R447, 448	ERD25TJ224	220kΩ 1/4W	2
R449, 450	ERD25FJ102	1kΩ 1/4W	2
R451, 452	ERD25FJ470	47Ω 1/4W	2
R453, 454	ERD25TJ104	100kΩ 1/4W	2
R455, 456	ERD25TJ124	120kΩ 1/4W	2
R457, 458	ERD25FJ822	8.2kΩ 1/4W	2
R459, 460	ERD25FJ822	8.2kΩ 1/4W	2
R461, 462	ERD25TJ333	33kΩ 1/4W	2
R463, 464	ERD25TJ104	100kΩ 1/4W	2
R467, 468	ERD25TJ683	68kΩ 1/4W	2
R470, 471	ERD25FJ392	3.9kΩ 1/4W	2
R473	ERD25FJ100	10Ω 1/4W	1
R474	ERD25TJ223	22kΩ 1/4W	1

Ref. No.	Part No.	Description	Per Set (pcs.)
R477	ERD25FJ472	4.7kΩ 1/4W	1
R478, 479	ERD25TJ155	1.5MΩ 1/4W	1
R501, 502	ERD25TJ473	47kΩ 1/4W	2
R503, 504	ERD25TJ123	12kΩ 1/4W	2
R505, 506	ERD25TJ155	1.5MΩ 1/4W	2
R507, 508	ERD25FJ472	4.7kΩ 1/4W	2
R509, 510	ERD25FJ102	1kΩ 1/4W	2
R511, 512	ERD25TJ223	22kΩ 1/4W	2
R513, 514	ERD25TJ154	150kΩ 1/4W	2
R515, 516	ERD25FJ222	2.2kΩ 1/4W	2
R517, 518	ERD25FJ472	4.7kΩ 1/4W	2
R519, 520	ERD25TJ155	1.5MΩ 1/4W	2
R521, 522	ERD25FJ103	10kΩ 1/4W	2
R523, 524	ERD25FJ271	270Ω 1/4W	2
R525, 526	ERD25TJ473	47kΩ 1/4W	2
R527, 528	ERD25TJ153	15kΩ 1/4W	2
R529, 530	ERD25TJ153	15kΩ 1/4W	2
R531	ERD25FJ182	1.8kΩ 1/4W	1
R545	ERD25FJ471	470Ω 1/4W	1
R605, 606	ERD25TJ333	33kΩ 1/4W	2
R607, 608	ERD25TJ104	100kΩ 1/4W	2
R609, 610	ERD25FJ152	1.5kΩ 1/4W	2
R611, 612	ERD25TJ474	470kΩ 1/4W	2
R613, 614	ERD25TJ154	150kΩ 1/4W	2
R615, 616	ERD25FJ103	10kΩ 1/4W	2
R617, 618	ERD25FJ103	10kΩ 1/4W	2
R619	ERD25FJ152	1.5kΩ 1/4W	1
R701, 702	ERD25FJ102	1kΩ 1/4W	2
R703, 704	ERD25TJ333	33kΩ 1/4W	2
R705, 706	ERD25FJ221	220Ω 1/4W	2
R707, 708	ERD25TJ333	33kΩ 1/4W	2
R709, 710	ERD25FJ102	1kΩ 1/4W	2
R711, 712	ERD25FJ332	3.3kΩ 1/4W	2
R713, 714	ERD50FJ4R7	4.7Ω 1/2W	2
R715	ERG1ANJP101S	100Ω 1W	1
R716, 717	ERD50FJ331	330Ω 1/2W	2
R801	ERD25TJ104	100kΩ 1/4W	1
R802	ERD25TJ154	150kΩ 1/4W	1
R804	ERD25FJ103	10kΩ 1/4W	1
R805	ERD25FJ471	470Ω 1/4W	1
R806, 807	ERD25TJ104	100kΩ 1/4W	2
R808	ERD25TJ473	47kΩ 1/4W	1
R809, 810	ERD25TJ104	100kΩ 1/4W	2
R811, 812	ERD25TJ224	220kΩ 1/4W	2
R813, 814	ERD25TJ223	22kΩ 1/4W	1
R815	ERD25TJ104	100kΩ 1/4W	1
R816	ERD25FJ221	220Ω 1/4W	2
R817, 818	ERD25TJ104	100kΩ 1/4W	2
R819, 820	ERD25TJ155	1.5MΩ 1/4W	2
R821	ERD25TJ104	100kΩ 1/4W	1
R822	ERD25TJ683	68kΩ 1/4W	1
R823, 824	ERD25TJ104	100kΩ 1/4W	2
R825	ERD25TJ473	47kΩ 1/4W	1
R826	ERD25TJ683	68kΩ 1/4W	1

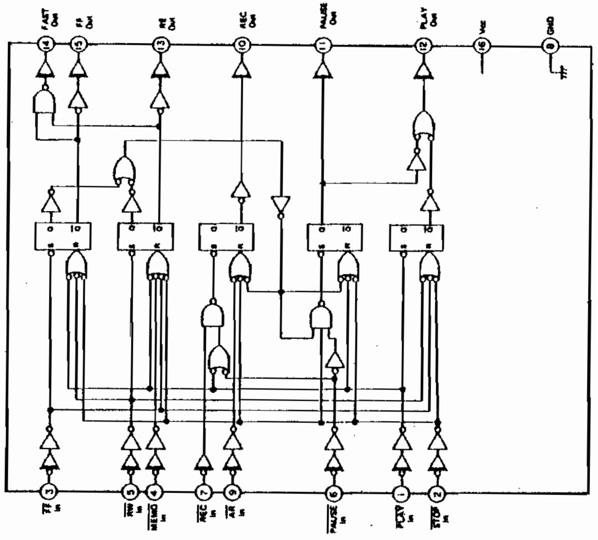
REPLACEMENT PARTS LIST

Ref. No.	Part No.	Description	Per Set (pcs.)
R827	ERD25TJ153	15kΩ 1/4W	1
R828	ERD25TJ333	33kΩ 1/4W	1
R829	ERD25FJ102	1kΩ 1/4W	1
R830, 831	ERD25TJ683	68kΩ 1/4W	2
R832	ERD25FJ682	6.8kΩ 1/4W	1
R833	ERD25TJ683	68kΩ 1/4W	1
R834	ERD25TJ104	100k Ω 1/4W	1
R835	ERD25TJ223	22kΩ 1/4W	1
R836	ERD25TJ333	33kΩ 1/4W	1
R837	ERD25FJ103	10kΩ 1/4W	1
R838, 839	ERD25FJ102	1kΩ 1/4W	2
R840, 841	ERD25FJ680	68Ω 1/4W	2
R842, 843	ERD25FJ680	68Ω 1/4W	2
R844	ERD25FJ680	68Ω 1/4W	1
R846, 847	ERD25FJ221	220Ω 1/4W	2
R848, 849	ERD25TJ104	100kΩ 1/4W	2
R850	ERD25TJ183	18kΩ 1/4W	1
R851	ERD25FJ103	10kΩ 1/4W	1
R852	ERD25TJ473	47kΩ 1/4W	1
R853 ⚠	ERF10ZJ101	100Ω 10W	1
R854	ERD25TJ683	68kΩ 1/4W	1
R855	ERD25TJ473	47kΩ 1/4W	1
R856 ⚠	ERF10ZJ101	100Ω 10W	1
R857	ERD25TJ683	68kΩ 1/4W	1
R858	ERD25TJ473	47kΩ 1/4W	1
R859 ⚠	ERF10ZJ101	100Ω 10W	1
R860	ERD25TJ683	68kΩ 1/4W	1
R861, 862	ERD25TJ473	47kΩ 1/4W	2
R863, 864	ERD25FJ330	33Ω 1/4W	2
R865, 866	ERD25FJ330	33Ω 1/4W	2
R867, 868	ERD25FJ330	33Ω 1/4W	2
R869, 870	ERD25FJ330	33Ω 1/4W	2
R871, 872	ERD25FJ330	33Ω 1/4W	2
R873, 874	ERD25TJ103	10kΩ 1/4W	2
R875, 876	ERD25FJ102	1kΩ 1/4W	2
R877	ERD25FJ122	1.2kΩ 1/4W	1
R880	ERD25FJ221	220Ω 1/4W	1
R881 ⚠	ERF5ANJ221	220Ω 5W	1
R882	ERD25FJ102	1kΩ 1/4W	1
R884	ERD25TJ683	68kΩ 1/4W	1
R885	ERD25FJ682	6.8kΩ 1/4W	1
R886	ERD25FJ102	1kΩ 1/4W	1
R887, 888	ERD25FJ332	3.3kΩ 1/4W	2
R889	ERD25FJ102	1kΩ 1/4W	1
R890, 891	ERD25FJ8R2	8.2Ω 1/4W	2
R892, 893	ERD25TJ153	15kΩ 1/4W	2
R894	ERD25FJ102	1kΩ 1/4W	1
R895	ERD25FJ221	220Ω 1/4W	1
R901	ERD25FJ103	10kΩ 1/4W	1
R902 ⚠	ERC12ZGK335	3.3MΩ 1/2W	1
R905 ⚠	ERX1ANJP2R2S	2.2Ω 1W	1
R906	ERD25FJ471	470Ω 1/4W	1
R907	ERD25FJ271	270Ω 1/4W	1

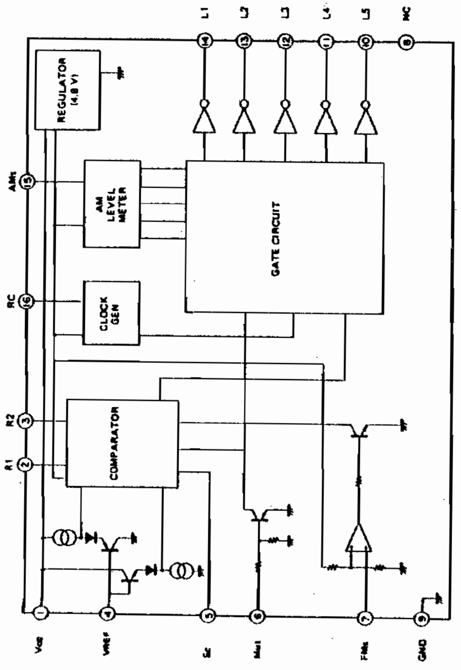
Ref. No.	Part No.	Description	Per Set (pcs.)
R908 ⚠	ERX1ANJP2R2S	2.2Ω 1W	1
R910	ERD25FJ221	220Ω 1/4W	1
R8001, 8002	ERD25TJ394	390kΩ 1/4W	2

IC BLOCK DIAGRAM

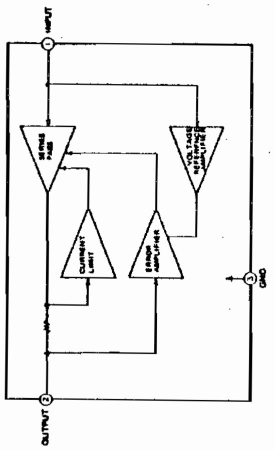
IC807 BA843



IC806 BA685



IC808 UPC78L05



REPLACEMENT PARTS LIST

Numbering System of Capacitor

Type	Voltage	Value	Tolerance
Four Letters	One or Two Letters	Two to Five Letters	One or Two Letters

Example:
E C K D 1 H 3 3 3 M D

Capacitor Type	Tolerance
ECCD: Temperature Compensating Ceramic	C: ±0.25pF
ECKD: High Dielectric Constant Ceramic	D: ±0.5pF
ECQM: Polyester	F: ±1pF
ECQS: Polystyrene Film	J: ±5%
ECFD: Semiconductor Ceramic	K: ±10%
ECEA: Electrolytic	M: ±20%
ECEB: Electrolytic	P: +100, –0%
ECET: Electrolytic	Z: +80, –20%
ECSF: Tantalum	

Ref. No.	Part No.	Description		Per Set (pcs.)
CAPACITORS				
C101	ECCD1H101K	100pF	50V	1
C102	ECCD1H120K	12pF	50V	1
C103	ECKD1H472KB	0.0047μF	50V	1
C104	ECKD1H102KB	0.001μF	50V	1
C105	ECKD1H223ZF	0.022μF	50V	1
C106	ECKD1H102KB	0.001μF	50V	1
C107	ECCD1H100F	10pF	50V	1
C108	ECCD1H390K	39pF	50V	1
C109	ECCD1H100F	10pF	50V	1
C110, 111	ECCD1H070D	7pF	50V	2
C112, 113	ECKD1H223ZF	0.022μF	50V	2
C114	ECKD1H102KB	0.001μF	50V	1
C115	ECKD1H223ZF	0.022μF	50V	1
C116	ECKD1H223ZF	0.022μF	50V	1
C118	ECCD1H070D	7pF	50V	1
C119	ECKD1H181KB	180pF	50V	1
C121	ECKD1H223ZF	0.022μF	50V	1
C122	ECKD1H223ZF	0.022μF	50V	1
C123, 124	ECKD1H223ZF	0.022μF	50V	2
C203	ECKD1H220K	22pF	50V	1
C205	ECFD1E103MD	0.01μF	25V	1
C206	ECKD1H472KB	0.0047μF	50V	1
C209	ECQS1361JZ	360pF	125V	1
C212	ECCD1H100F	10pF	50V	1
C214	ECQS1152JZ	1500pF	125V	1
C215	ECKD1H223ZF	0.022μF	50V	1
C216	ECEA1HS100	10μF	16V	1
C217	ECCD1H270K	27pF	50V	1
C218	ECFD1E223MD	0.022μF	25V	1
C219	ECKD1H223ZF	0.022μF	50V	1
C220	ECFD1E223MD	0.022μF	25V	1

Ref. No.	Part No.	Description		Per Set (pcs.)
C221, 222	ECKD1H223ZF	0.022μF	50V	2
C223	ECEA1HS100	10μF	50V	1
C225	ECCD1H180K	18pF	50V	1
C227	ECEA1ES101	100μF	25V	1
C228	ECEA1AS101	100μF	10V	1
C229	ECFD1E223MD	0.022μF	25V	1
C230	ECEA1ES101	100μF	25V	1
C231	ECKD1H181KB	180pF	50V	1
C232	ECCD1H050D	5pF	50V	1
C233	ECKD1H181KB	180pF	50V	1
C234	ECEA1JS4R7	4.7μF	63V	1
C235	ECEA1HS100	10μF	50V	1
C236	ECEA2AS010	1μF	100V	1
C237	ECKD1H223ZF	0.022μF	50V	1
C238	ECKD1H682KB	0.0068μF	50V	1
C239	ECEA1ES470	47μF	25V	1
C240	ECKD1H472KB	0.0047μF	50V	1
C301	ECEA2AS010	1μF	100V	1
C302	ECFD1E473MD	0.047μF	25V	1
C303	ECQS1152JZ	1500pF	125V	1
C304	ECEA50MR22R	0.22μF	50V	1
C305	ECEA50MR47R	0.47μF	50V	1
C306	ECEA1HN010S	1μF	50V	1
C307, 308	ECFD1E103MD	0.01μF	25V	2
C309, 310	ECFD1E223MD	0.022μF	25V	2
C311, 312	ECKD1H222KB	0.0022μF	50V	2
C313, 314	ECKD1H222KB	0.0022μF	50V	2
C401, 402	ECEA2AS010	1μF	100V	2
C403, 404	ECEA2AS010	1μF	100V	2
C405, 406	ECEA1HS100	10μF	50V	2
C407, 408	ECKD1H102KB	0.001μF	50V	2
C409, 410	ECEA1HS100	10μF	50V	2
C411, 412	ECFD1E563MD	0.056μF	25V	2
C413, 414	ECEA50MR1R	0.1μF	50V	2
C415, 416	ECEA50MR15R	0.15μF	50V	2
C417, 418	ECQM1H184MZ	0.18μF	50V	2
C419	ECEA1HS100	10μF	50V	1
C420	ECEA1HS100	10μF	50V	1
C421, 422	ECKD1H472KB	0.0047μF	50V	2
C423, 424	ECKD1H331KB	330pF	50V	2
C427, 428	ECKD1H102KB	0.001μF	50V	2
C429, 430	ECEA50M4R7R	4.7μF	50V	2
C431, 432	ECKD1H102KB	0.001μF	50V	2
C435, 436	ECEA1HS100	10μF	50V	2
C437, 438	ECFD1E223MD	0.022μF	25V	2
C439, 440	ECEA1HS100	10μF	50V	2
C443, 444	ECKD1H681KB	680pF	50V	2
C445, 446	ECEA2AS010	1μF	100V	2
C447, 448	ECEA1CS221	220μF	16V	2
C449, 450	ECKD1H472KB	0.0047μF	50V	2
C451	ECEA1ES101	100μF	25V	1
C453	ECEA2AS010	1μF	100V	1
C454	ECEA1CS471	470μF	16V	1

REPLACEMENT PARTS LIST

Ref. No.	Part No.	Description		Per Set (pcs.)
C501, 502	ECEA50MR47R	0.47μF	50V	2
C503, 504	ECKD1H471KB	470pF	50V	2
C505, 506	ECEA2AS3R3	3.3μF	100V	2
C507, 508	ECFD1E223MD	0.022μF	25V	2
C509, 510	ECFD1E183MD	0.018μF	25V	2
C511, 512	ECEA50MR33R	0.33μF	50V	2
C513, 514	ECKD1H471KB	470pF	50V	2
C515, 516	ECEA50M1R	1μF	50V	2
C517, 518	ECKD1H102KB	0.001μF	50V	2
C519, 520	ECEA50MR1R	1μF	50V	2
C521	ECEA1CS471	470μF	16V	1
C522, 523	ECKD1H152KB	0.0015μF	50V	2
C533	ECEA1CS471	470μF	16V	1
C603, 604	ECEA1HS100	10μF	50V	2
C605, 606	ECEA1ES470	47μF	25V	2
C607, 608	ECFD1E223MD	0.022μF	25V	2
C609, 610	ECKD1H682KB	0.0068μF	50V	2
C611, 612	ECEA50M1	1μF	50V	2
C613, 614	ECEA1HS100	10μF	50V	2
C615	ECEA1CS221	220μF	16V	1
C617, 618	ECKD1H102KB	0.001μF	50V	2
C701, 702	ECEA2AS010	1μF	100V	2
C703, 704	ECKD1H471KB	470pF	50V	2
C705, 706	ECEA1ES470	47μF	25V	2
C707, 708	ECEA1ES470	47μF	25V	2
C709	ECEA1VS101	100μF	35V	1
C710	ECEA1VS221	220μF	35V	1
C711, 712	ECQM1H104MZ	0.1μF	50V	2
C713	ECCD1H560K	56pF	50V	1
C801	ECEA1JS4R7	4.7μF	25V	1
C802	ECEA1HS100	10μF	50V	1
C804, 805	ECEA1CS330	33μF	16V	2
C806	ECFD1E103MD	0.01μF	25V	1
C807, 808	ECFD1E473MD	0.047μF	25V	2
C809	ECEA1JS4R7	4.7μF	63V	1
C810	ECEA50MR68R	0.68μF	50V	1
C811	ECFD1E473MD	0.047μF	25V	1
C812	ECEA2AS010	1μF	100V	1
C813	ECET50MR222	2200μF	50V	1
C814, 815	ECEA1HS100	10μF	50V	2
C816	ECEA1CS100	10μF	16V	1
C817	ECEA1HS2R2	2.2μF	50V	1
C818	ECEA1ES101	100μF	25V	1
C819, 820	ECEA1HS100	10μF	50V	2
C821, 822	ECKD1H102KB	0.001μF	50V	2
C823, 824	ECEA1HS100	10μF	50V	2
C825	ECEA1HS2R2	2.2μF	50V	1
C826	ECKD1H102KB	0.001μF	50V	1
C828	ECEA1HS100	10μF	50V	1
C830, 831	ECQG1H104MZ	0.1μF	50V	2
C832	ECEA2AS010	1μF	100V	1
C834, 835	ECQS1222JZ	2200pF	125V	2
C836	ECFD1E103MD	0.01μF	25V	1
C837	ECQG1H103MZ	0.01μF	50V	1
C838	ECQS1682JZ	6800pF	125V	1
C839	ECQS1182JZ	1800pF	125V	1
C840, 841	ECKD1H271KB	270pF	50V	2
C843	ECFD1E473MD	0.047μF	25V	1
C844	ECFD1E473MD	0.047μF	25V	1
C848	ECEA1ES221	220μF	25V	1
C851	ECEA1ES470	47μF	25V	1
C852	ECFD1E473MD	0.047μF	25V	1
C901 ⚠	ECKDHS101MB	100pF	400V	1
C902, 903	ECKD1H103ZF	0.01μF	50V	2
C904, 905	ECKD1H103ZF	0.01μF	50V	2
C906	ECKD1H103ZF	0.01μF	50V	1
C907, 908	ECET35R332	3300μF	35V	2
C909	ECET25R222	2200μF	25V	1
C910	ECET25R332	3300μF	25V	1
C913	ECEA1ES101	100μF	25V	1
C914	ECEA1ES100	10μF	25V	1
C915 ⚠	ECKDHS103SE	0.01μF	400V	1

REPLACEMENT PARTS LIST OF CABINET AND CHASSIS

Ref. No.	Part No.	Description	Per Set (pcs.)
1	SYK1664	Cabinet A Ass'y	1
2	SKE338	Side Board	2
3	SYU368	Bottom Cover Ass'y	1
4	SYK1798	Cabinet B Ass'y	1
4-1	SNE456	Nut, Side	2
5	SYK1794-1	Rear Cover Ass'y	1
6	SYE464	Dust Cover Ass'y	1
7	SYL6-1	Foot	2
8	SYP516-1	Escutcheon Ass'y	1
8-1	SGX1242	Panel Deck	1
9	SYP514-1	Dial Scale Ass'y	1
10	SGE1224	Transparent Cover	1
11	SYE816	Cassette Lid Ass'y	1
12	SYE738-1	Connection Plate Ass'y	1
13	SDP1046	Dial Pointer	1
14	SGK668	Running Indicator A	2
15	SGL184	Running Indicator B	2
16	SBN918	Knob, Tuning	1
17	SBN1004	Knob, Volume	1
18	SBN998	Knob, Control	3
19	SBN990-1	Knob, Rec	3
20	SBN1008	Knob, Selector	2
21	SBC356-5	Button, Power	1
22	SBC356	Button, Lever	2
23	SBZ4618	Ornament, Lever Button	2
24	SBC442	Button A, Deck	3
25	SBC444	Button B, Deck	2
26	SBC446	Button C, Deck	2
27	SBC450	Button, Eject	1
28	SBC190-1	Button, Reset	1
29	SBN1000	Knob, Reverse	1
30	SBC448	Button, Meter Select	1
31	SMQ3212	Tape Countor	1
32	SMQ1988	Belt, Counter	1
34	SJF106-1	Holder, Lamp	1
35	RDD382YA	Dial Drum	1
36	RDS4090A	Spring, Dial	1
37	SHR9094	Latch	7
38	SDT9356	Tuning Shett	1
39	SUS360	Spring, Deck Button	7
40	SHG956	Rubber, Lamp	2
41	SXE208	Eject Lever Ass'y	1
42 ⚠	RJA9YA-K	Power Cord	1
43 ⚠	SJF110	Holder, Fuse	2
44	SJF4212	Terminal, ANT	2
45	SJF3208	Terminal, RCA	3
46	XCJS6PF6	Jack, Headphone	1
47	RJJ48A	Jack, Mic	2
48	SJP2216	Plug, Phono	1
49 ⚠	SHR112	Cord Clamp	1
50	SHG9100	Rubber, FM ANT	1

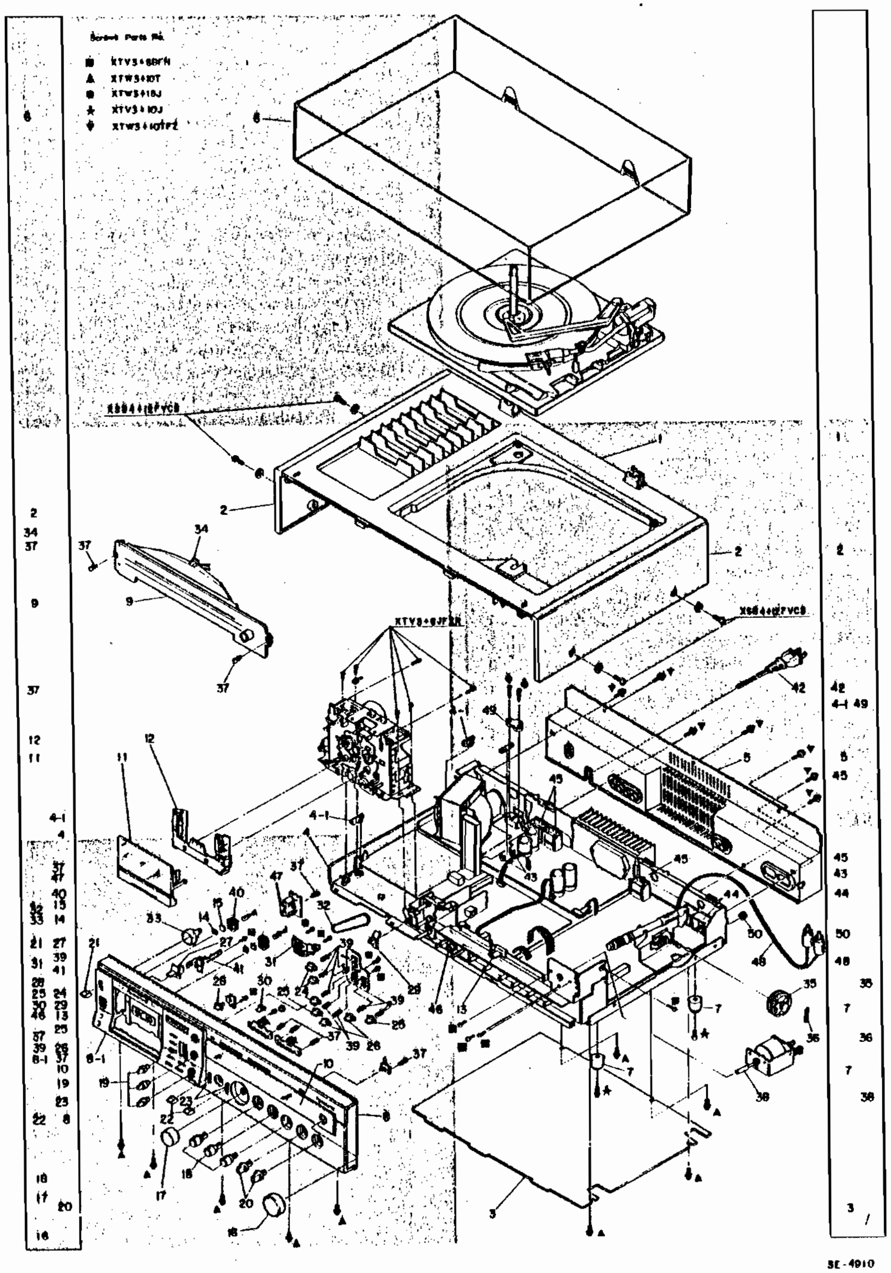
Ref. No.	Part No.	Description	Per Set (pcs.)

REPLACEMENT PARTS LIST OF CABINET AND CHASSIS

Ref. No.		Part No.	Description	Per Set (pcs.)
1		SYK1664	Cabinet A Ass'y	1
2		SKE338	Side Board	2
3		SYU368	Bottom Cover Ass'y	1
4		SYK1796	Cabinet B Ass'y	1
4-1		SNE456	Nut, Side	2
5		SYK1794-1	Rear Cover Ass'y	1
6		SYE464	Dust Cover Ass'y	1
7		SYL6-1	Foot	2
8		SYP516-1	Escutcheon Ass'y	1
8-1		SGX1242	Panel Deck	1
9		SYP514-1	Dial Scale Ass'y	1
10		SGE1224	Transparent Cover	1
11		SYE816	Cassette Lid Ass'y	1
12		SYE736-1	Connection Plate Ass'y	1
13		SDP1046	Dial Pointer	1
14		SGK668	Running Indicator A	2
15		SGL184	Running Indicator B	2
16		SBN918	Knob, Tuning	1
17		SBN1004	Knob, Volume	1
18		SBN998	Knob, Control	3
19		SBN990-1	Knob, Rec	3
20		SBN1008	Knob, Selector	2
21		SBC356-5	Button, Power	1
22		SBC356	Button, Lever	2
23		SBZ4618	Ornament, Lever Button	2
24		SBC442	Button A, Deck	3
25		SBC444	Button B, Deck	2
26		SBC446	Button C, Deck	2
27		SBC450	Button, Eject	1
28		SBC190-1	Button, Reset	1
29		SBN1000	Knob, Reverse	1
30		SBC448	Button, Meter Select	1
31		SMQ3212	Tape Countor	1
32		SMQ1988	Belt, Counter	1
34		SJF108-1	Holder, Lamp	1
35		RDD382YA	Dial Drum	1
36		RDS4090A	Spring, Dial	1
37		SHR9094	Latch	7
38		SDT9358	Tuning Shaft	1
39		SUS360	Spring, Deck Button	7
40		SHG958	Rubber, Lamp	2
41		SXE208	Eject Lever Ass'y	1
42	⚠	RJA9YA-K	Power Cord	1
43	⚠	SJF110	Holder, Fuse	2
44		SJF4212	Terminal, ANT	2
45		SJF3208	Terminal, RCA	3
46		XCJ56PF6	Jack, Headphone	1
47		RJJ48A	Jack, Mic	2
48		SJP2216	Plug, Phono	1
49	⚠	SHR112	Cord Clamp	1
50		SHG9100	Rubber, FM ANT	1

Ref. No.	Part No.	Description	Per Set (pcs.)

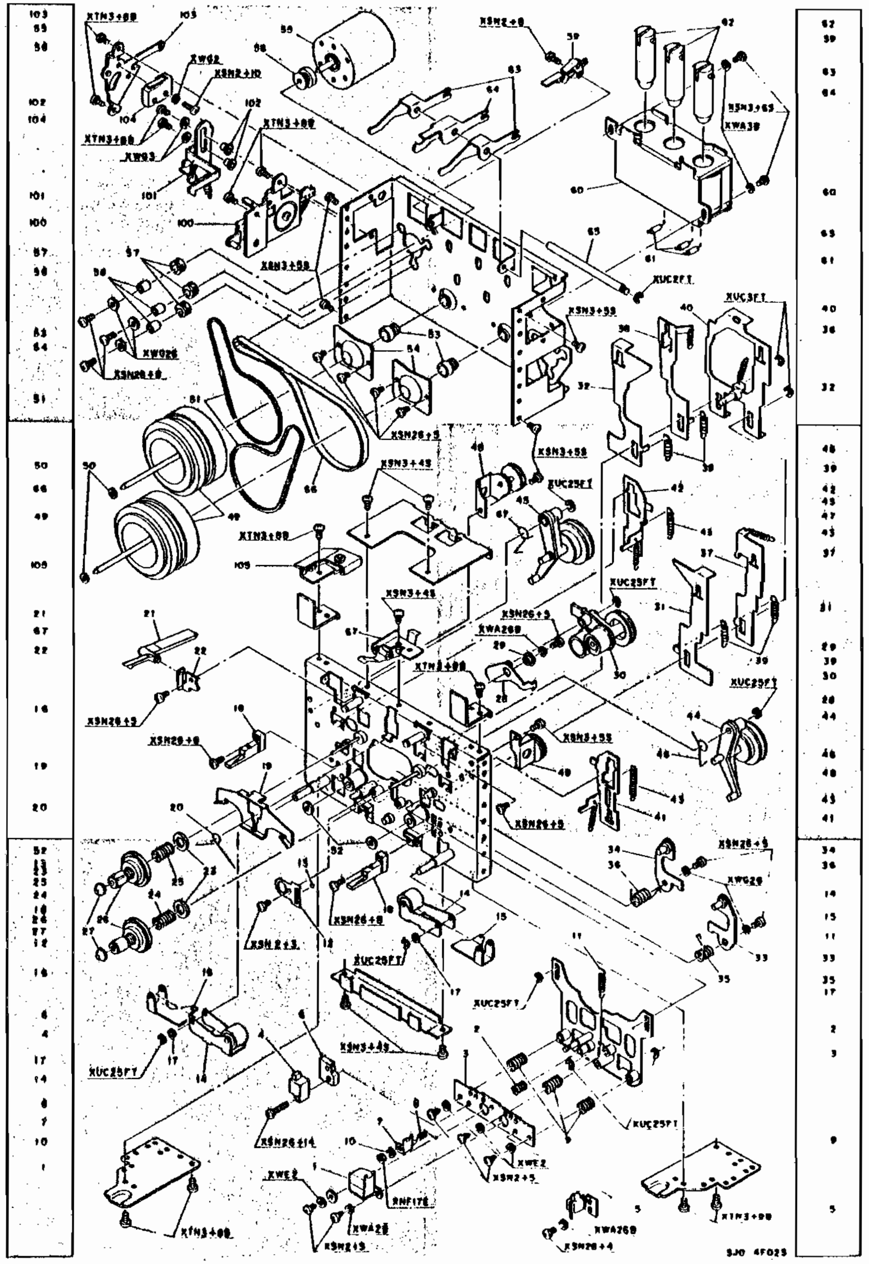
PARTS LOCATION OF CABINET AND CHASSIS



REPLACEMENT PARTS LIST OF CASSETTE TAPE DECK (SJD4F02S)

Ref. No.	Part No.	Description	Per Set (pcs.)
1	SJH66	R/P Head	1
2	SMQ3318-V	Spring, R/P Head	1
3	SMQ3322-V	E Head Base	1
4	SJH68	E Head	1
5	SMQ3324-V	Dummy Head Ass'y	1
6	SMQ3328-V	Spacer, E Head	1
7	SMQ3330-V	Guide, Tape	1
8	SMQ3332-V	Spring, Tape Guide	1
9	SMQ3334-V	Spring, E Head Base	3
10	SMQ3336-V	Washer	1
11	SMQ3338-V	Spring, Head Panel	1
12	SMQ3340-V	Spring Plate, Head Panel Hold	1
13	SMQ3342-V	Steel Ball	1
14	SMQ3344-V	Pinch Roller Ass'y	2
15	SMQ3346-V	Lever, (R), Pressure	1
16	SMQ3348-V	Lever (L), Pressure	1
17	SMQ3352-V	Washer	2
18	SMQ3354-V	Guide, Cassette	2
19	SMQ3356-V	Brake arm	1
20	SMQ3358-V	Spring, Brake arm	1
21	SMQ3360-V	Safety Lever, Rec	1
22	SMQ3362-V	Holder, Rec Safety Lever	1
23	SMQ3364-V	Washer	2
24	SMQ3366-V	Spring, Take up Reel	1
25	SMQ3368-V	Spring, Supply Reel	1
26	SMQ3370-V	Reel Table Ass'y	2
27	SMQ2926-V	Cap, Reel	2
28	SMQ3372-V	Lever, RF	1
29	SMQ3490-V	Collsr, RF Lever	1
30	SMQ3374-V	RF Clutch Ass'y	1
31	SMQ3376-V	Drive arm Ass'y (R)	1
32	SMQ3378-V	Drive Arm Ass'y (L)	6
33	SMQ3380-V	Link Lever Ass'y (R)	1
34	SMQ3382-V	Link Lever Ass'y (L)	1
35	SMQ3384-V	Spring, Link Lever (R)	1
36	SMQ3386-V	Spring, Link Lever (L)	1
37	SMQ3388-V	FF Slide Lever w/Spring	1
38	SMQ3392-V	Rewind Slide Lever w/Spring	1
39	SMQ3396-V	Spring, Drive arm	4
40	SMQ3398-V	Operation Arm Ass'y w/Spring	1
41	SMQ3402-V	Take up Arm (R) w/Spring	1
42	SMQ3404-V	Take up Arm (L) w/Spring	1
43	SMQ3406-V	Spring, Take up Arm	2
44	SMQ3408-V	Clutch Ass'y (R)	1
45	SMQ3410-V	Clutch Ass'y (L)	1
46	SMQ3412-V	Spring, Clutch (R)	1
47	SMQ3414-V	Spring, Clutch (L)	1
48	SMQ3416-V	Reversing Roller Ass'y	2
49	SMQ3418-V	Flywheel	2
50	SMQ3420-V	Washer	2
51	SMQ2948-V	Belt, Sub	2
52	SMQ3012-V	Washer, Oil Thrower	2
53	SMQ3422-V	Screw, Flywheel Thrust Adjust	2
54	SMQ3424-V	Plate, Adjust Screw	2
55	MMI6A2LK	Motor	1
56	SMQ3426-V	Pulley, Motor	1
57	SMQ3428-V	Rubber cushion, Motor	3
58	SMQ2968-V	Collar, Motor	3
59	SMQ3430-V	Rec Switch	1
60	SMQ3432-V	Solenoid Ass'y	1
61	SM112	Diode	3
62	SMQ3434-V	Shaft Ass'y	3
63	SMQ3492-V	Lever A, Solenoid	2
64	SMQ3494-V	Lever B, Solenoid	1
65	SMQ3436-V	Shaft, Solenoid Lever	1
66	SMQ3438-V	Main Belt	1
67	SMQ3440-V	Cassette Holder Ass'y	1
100	SXE200	Eject arm Ass'y	1
101	SMQ3442	Eject Hook Ass'y w/Spring	1
102	SMQ3192	Collar, Eject Hook	2
103	SMQ3172	Bracket, Eject Switch	1
104	AH3222	Eject Switch	1
105	SMQ3444	Operation Lever Ass'y, Rec	1

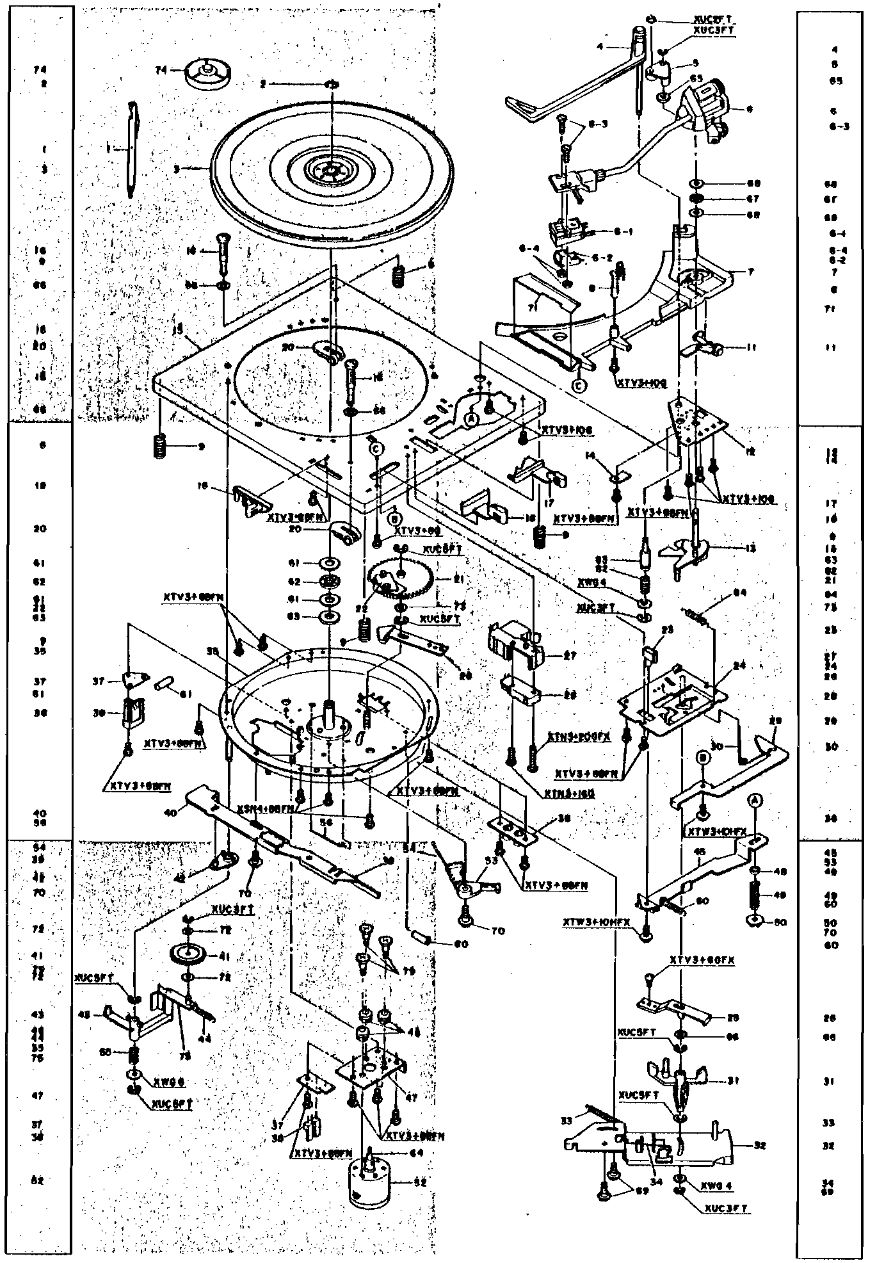
EXPLODED VIEW OF CASSETTE TAPE DECK
(SJD4F02S)



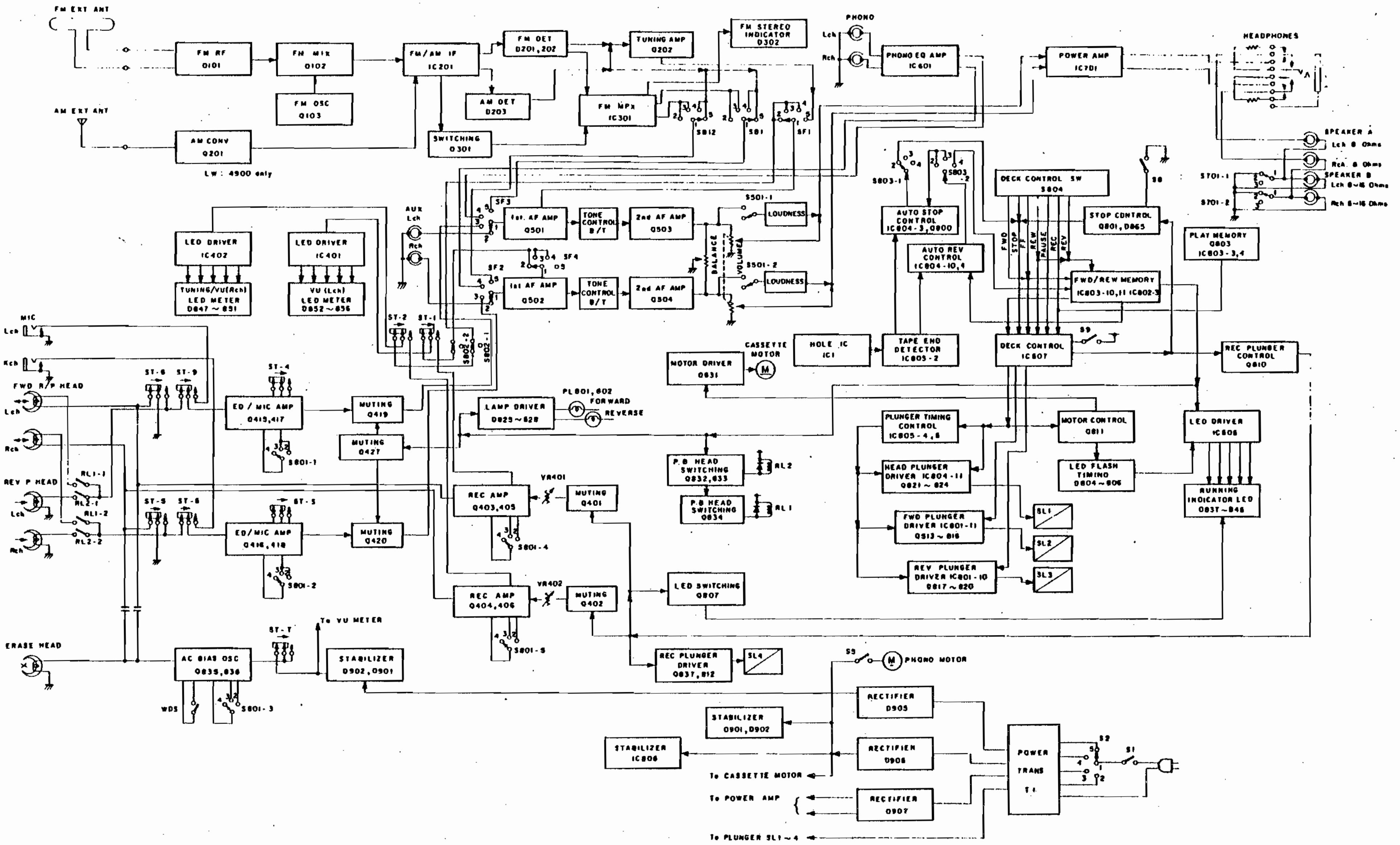
REPLACEMENT PARTS LIST OF RECORD CHANGER (SP-915EMB-TS1M)

Ref. No.	Part No.	Description	Per Set (pcs.)
1	SFVS915A01E	Multiple-Plug Spindle	1
2	SFXT915A01	Stopper Ring	1
3	SFTE915A03	Turntable Plater	1
4	SFUM915A05A	Record Pusher Ass'y	1
5	SFUM915A16	Lift Guide	1
6	EPA629SMCD	Tone Arm Assembly without Cartridge, Stylus, Screw, Nut	1
6-1	EPC75SMCD	Cartridge	1
6-2	EPS75STCSD	Stylus	1
6-3	SFPEV62900	Screw	1
6-4	SFPEN3302	Nut	2
7	SFKP915A02	Arm Base	1
8	SFKU915A02E	Arm Rest Assembly	1
9	SFQC915A02	Spring, Main Plate Assembly	4
11	SFKT915A05	Cueing Lever	1
12	SFUK915A01	Pickup Plate	1
13	SFXJ915A01A	Locating Plate Assembly	1
14	SFDP915A01	Print Base	1
15	SFBP915A02E	Main Plate Assembly	1
16	SFXG411-1	Transit Screw	2
17	SFKT915A06E	Size Select Knob	1
18	SFKT915A07E	Start Knob	1
19	SFKT915A08E	Speed Select Knob	1
20	SFUP411-6	Retaining Clip	2
21	SFUG915A01A	Main Gear Assembly	1
22	SFUK915A01E	Actuating Link Assembly	1
23	SFUM915A09	Select Guide	1
24	SFUK915A02E	Sub Plate Assembly	1
25	SFUC915A02	Actuating Slide B	1
26	SFUC915A01	Actuating Slide A	1
27	SFUM915A15	Switch Cover	1
28	SFDSAH47009	Micro Switch	1
29	SFUP915A02E	Start Rod Assembly	1
30	SFQS915A01	Spring, Start Rod	1
31	SFUM915A08	Index Lever	1
32	SFUP915A07E	Operating Plate Assembly	1
33	SFQH915A04	Spring A, Operating Plate	1
34	SFQS915A04	Spring B, Operating Plate	1
35	SFUK915E03E	Base Plate Assembly	1
36	SFDJ915A01E	Pin Jack Receptacle	1
37	SFDP915E01	Barrier	1
38	SFDKCMSP3003	3-Pin Connector	1
39	SFUP915A05	Speed Select Lever B	1
40	SFUM915A13	Speed Select Lever A	1
41	SFMI915A03E	Idler Assembly	1
42	SFMK915A02	Idler Cam	1
43	SFUM915A14	Speed Change Lever	1
44	SFQH915A03-1	Spring, Idler Lever	1
45	SFUP915A03	Select Rod	1
46	SFGC920A01	Motor Cushion Rubber	3
47	SFMF915E01	Motor Plate	1
48	SFUM915A10	Collar	1
49	SFQA915A05	Spring	1
50	SFUM915A11	Lock Collar	1
52	MYT6A2E	Motor	1
53	SFUM915A12	Spindle Lever	1
54	SFQS915A03	Spring, Spindle Lever	1
55	SFQA915A06	Spring, Speed Change Lever	1
56	SFQS915A02	Spring, Base Plate	1
60	SFQH915A01	Spring B, Select Rod	1
61	SFXW920A03	Turntable Washer	2
62	SFUP920A09E	Ball Race	1
63	SFGC915A03	Turntable Support Rubber	1
64	SFMC915A03-1	Motor Pulley	1
65	SFXN915A01	Nut	1
66	QBJ3309	Washer	2
67	SFUP690B01E	Ball race	1
68	SFXW690B01	Pickup Washer	2
69	SFXG910-04	Screw	2
70	SFXG910-06	Screw	2
71	SFNP915A01	Plate	1
72	QBJ3066	Washer	1
73	SFPEW1100	Washer	1
74	SFVA920A01	Manual Adaptor	1
75	SFUP915A11E	Idler Lever Assembly	1
79	SFXJ915E01	Screw	3
80	SFEB3BT17	Tuve	1
81	SFEB5BT20	Tuve, Cover	1
82	SFQA915A07	Spring, Lift Bar	1
83	SFKR915A01	Lift Bar	1
84	SFQH915A02	Spring, Sub Plate	1
—	SFVA701-1E	Auto 45 r.p.m. Adaptor (Option)	1

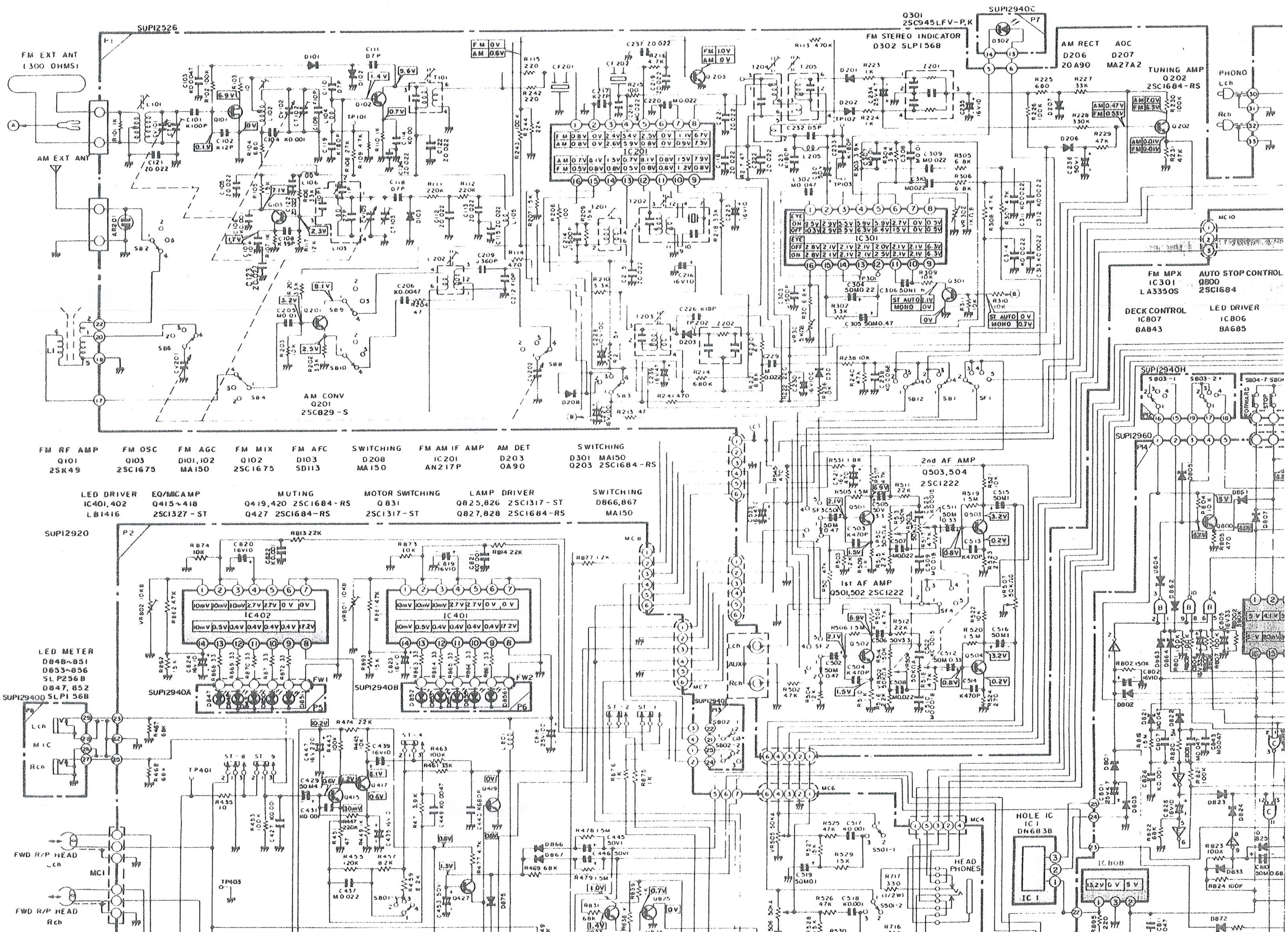
EXPLODED VIEW OF RECORD CHANGER (SP-915EMB-TS1M)



BLOCK DIAGRAM

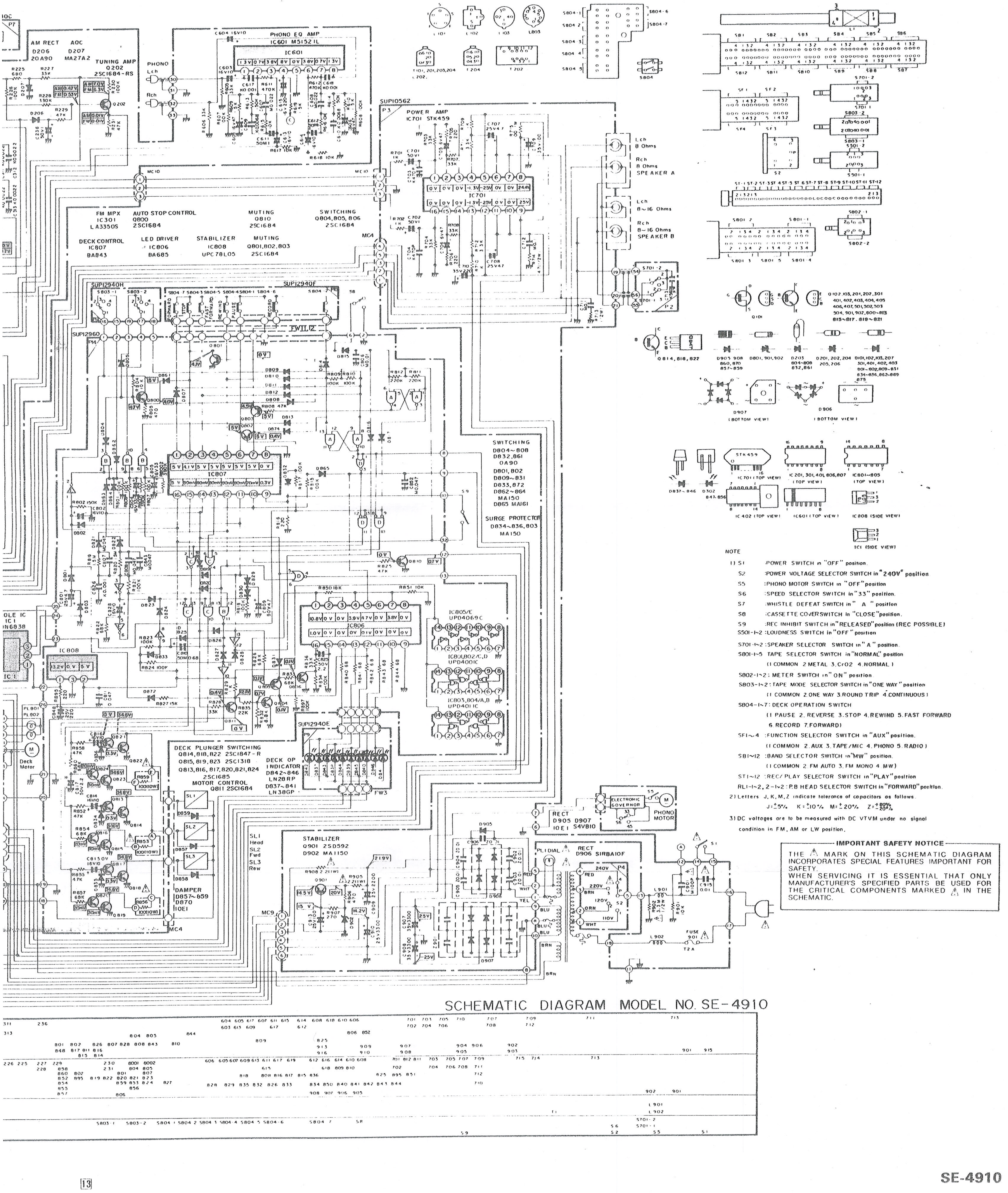

FM EXT ANT
FM RF Q101
FM MIX Q102
FM OSC Q103
FM/AM IF IC201
FM DET D201,202
TUNING AMP Q202
FM STEREO INDICATOR D302
AM DET D203
FM MPX IC301
SWITCHING Q301
AM EXT ANT
AM CONV Q201
LW : 4900 only
S812
S81
SF1
PHONO
Lch
Rch
PHONO EQ AMP IC601
POWER AMP IC701
HEADPHONES
SPEAKER A
Lch 8 Ohms
Rch 8 Ohms
SPEAKER B
Lch 8~16 Ohms
Rch 8~16 Ohms
S701-1
S701-2
AUX
SF3
SF2
SF4
1st AF AMP Q501
1st AF AMP Q502
TONE CONTROL B/T
2nd AF AMP Q503
2nd AF AMP Q504
BALANCE
VOLUME
S501-1
S501-2
LOUDNESS
LED DRIVER IC402
LED DRIVER IC401
TUNING/VU(Rch) LED METER D847~851
VU (Lch) LED METER D852~856
S803-1
S803-2
AUTO STOP CONTROL IC804-3,Q800
AUTO REV CONTROL IC804-10,4
DECK CONTROL SW S804
FWD
STOP
FF
REW
PAUSE
REC
REV
STOP CONTROL Q801,D865
S8
PLAY MEMORY Q803 IC803-3,4
FWD/REW MEMORY IC803-10,11 IC802-3
MIC
ST-2
ST-1
S802-2
S802-1
ST-8
ST-9
ST-4
FWD R/P HEAD
REV P HEAD
RL1-1
RL2-1
RL1-2
RL2-2
ST-5
ST-6
ED/MIC AMP Q415,417
ED/MIC AMP Q416,418
S801-1
S801-2
MUTING Q419
MUTING Q427
MUTING Q420
LAMP DRIVER D825~828
PL801,602
FORWARD
REVERSE
CASSETTE MOTOR
MOTOR DRIVER Q831
HOLE IC IC1
TAPE END DETECTOR IC805-2
DECK CONTROL IC807
S9
REC PLUNGER CONTROL Q810
REC AMP Q403,405
REC AMP Q404,406
VR401
VR402
MUTING Q401
MUTING Q402
S801-4
S801-5
P.B HEAD SWITCHING Q832,833
P.B HEAD SWITCHING Q834
RL2
RL1
PLUNGER TIMING CONTROL IC805-4,6
MOTOR CONTROL Q811
LED DRIVER IC808
HEAD PLUNGER DRIVER IC804-11 Q821~824
LED FLASH TIMING D804~806
RUNNING INDICATOR LED D837~846
FWD PLUNGER DRIVER IC801-11 Q813~816
REV PLUNGER DRIVER IC801-10 Q817~820
SL1
SL2
SL3
LED SWITCHING Q807
ERASE HEAD
AC BIAS OSC Q835,836
ST-7
To VU METER
STABILIZER D902,Q901
WDS
S801-3
REC PLUNGER DRIVER Q837,812
SL4
S5
PHONO MOTOR
RECTIFIER D905
STABILIZER Q901,D902
STABILIZER IC806
RECTIFIER D906
To CASSETTE MOTOR
To POWER AMP
RECTIFIER D907
To PLUNGER SL1~4
POWER TRANS T1
S2
S1

SCHEMATIC DIAGRA


SUP12526
FM EXT ANT (300 OHMS)
AM EXT ANT
Q301 2SC945LFV-P,K
FM STEREO INDICATOR D302 SLP156B
SUP12940C
AM RECT D206 20A90
AOC D207 MA27A2
TUNING AMP Q202 2SC1684-RS
PHONO
IC201
IC301
AM CONV Q201 2SC829-S
FM MPX IC301 LA3350S
AUTO STOP CONTROL Q800 2SC1684
DECK CONTROL IC807 BA843
LED DRIVER IC806 BA685
SUP12940H
SUP12960
FM RF AMP Q101 2SK49
FM OSC Q103 2SC1675
FM AGC D101,102 MA150
FM MIX Q102 2SC1675
FM AFC D103 SD113
SWITCHING D208 MA150
FM AM IF AMP IC201 AN217P
AM DET D203 OA90
SWITCHING D301 MA150 Q203 2SC1684-RS
LED DRIVER IC401,402 LB1416
EQ/MIC AMP Q415~418 2SC1327-ST
MUTING Q419,420 2SC1684-RS Q427 2SC1684-RS
MOTOR SWITCHING Q831 2SC1317-ST
LAMP DRIVER Q825,826 2SC1317-ST Q827,828 2SC1684-RS
SWITCHING D866,867 MA150
SUP12920
IC402
IC401
LED METER D848~851 D853~856 SLP256B D847,852 SLP156B
SUP12940D
SUP12940A
SUP12940B
MIC Lch Rch
2nd AF AMP Q503,504 2SC1222
1st AF AMP Q501,502 2SC1222
Lch AUX Rch
HOLE IC IC1 DN6838
HEAD PHONES
FWD R/P HEAD Lch
FWD R/P HEAD Rch
REV P HEAD Lch
REV P HEAD Rch
ERASE HEAD
MC1
MC2
MC3
MC4
MC6
MC7
MC8
MC9
Deck Motor
Rec Plunger
IC808
DECK P Q814,8 Q815,8 Q813,8
DAMPER D857~8 D870 10E1
SUP12940G
AC BIAS Q835,836 2SC1383(NC)-R,S
STABILIZER Q902 2SC1383(NC)-R,S D901 MA1160
REC AMP Q403~406 2SC1684RS
STABILIZER D871,873 VD1223
SWITCHING D875 MA161
P B HEAD SWITCHING Q832 2SC1684-RS Q833,834 2SC1317-ST
REC PLUNGER SWITCHING Q837 2SC1684-RS Q812 2SC1847-R
MUTING Q401,402 2SC1684-R,S
LED SWITCHING Q807 2SA564-RS
DAMPER D868,869 MA150
C
R
L,T
SW

*This diagram might be modified without notice for further development of technology.

HEMATIC DIAGRAM


PHONO EQ AMP
IC601 M5152IL
TUNING AMP
Q202
2SC1684-RS
AM RECT D206 2OA90
AOC D207 MA27A2
POWER AMP
IC701 STK459
SUP10562
Lch 8 Ohms
Rch 8 Ohms
SPEAKER A
Lch 8~16 Ohms
Rch 8~16 Ohms
SPEAKER B
FM MPX IC301 LA3350S
AUTO STOP CONTROL Q800 2SC1684
MUTING Q810 2SC1684
SWITCHING Q804,805,806 2SC1684
DECK CONTROL IC807 BA843
LED DRIVER IC806 BA685
STABILIZER IC808 UPC78L05
MUTING Q801,802,803 2SC1684
SWITCHING D804~808 D832,861 OA90 D801,802 D809~831 D833,872 D862~864 MA150 D865 MA161
SURGE PROTECTOR D834~836,803 MA150
IC805/E UPD4069C
IC801/802/C,D UPD4001C
IC803,804/A,B UPD4011C
DECK PLUNGER SWITCHING Q814,818,822 2SC1847-R Q815,819,823 2SC1318 Q813,816,817,820,821,824 2SC1685
MOTOR CONTROL Q811 2SC1684
DECK OP INDICATOR D842~846 LN28RP D837~841 LN38GP
DAMPER D857~859 D870 10E1
STABILIZER Q901 2SD592 Q902 MA1150
RECT D905 D907 10E1 S4VB10
RECT D906 SIRBA10F
ELECTRONIC GOVERNOR
PHONO MOTOR
Deck Motor
IC701 (TOP VIEW)
IC201, 301, 401, 806, 807 (TOP VIEW)
IC801~805 (TOP VIEW)
IC402 (TOP VIEW)
IC601 (TOP VIEW)
IC808 (SIDE VIEW)
IC1 (SIDE VIEW)
D907 (BOTTOM VIEW)
D906 (BOTTOM VIEW)

SCHEMATIC DIAGRAM MODEL NO. SE-4910

NOTE

1) S1 :POWER SWITCH in "OFF" position.
S2 :POWER VOLTAGE SELECTOR SWITCH in "240V" position
S5 :PHONO MOTOR SWITCH in "OFF" position
S6 :SPEED SELECTOR SWITCH in "33" position.
S7 :WHISTLE DEFEAT SWITCH in " A " position
S8 :CASSETTE COVER SWITCH in "CLOSE" position.
S9 :REC INHIBIT SWITCH in "RELEASED" position (REC POSSIBLE)
S501-1~2 :LOUDNESS SWITCH in "OFF" position
S701-1~2 :SPEAKER SELECTOR SWITCH in " A " position.
S801-1~5 TAPE SELECTOR SWITCH in "NORMAL" position
(1 COMMON 2 METAL 3.CrO2 4.NORMAL)
S802-1~2 : METER SWITCH in " ON " position
S803-1~2 : TAPE MODE SELECTOR SWITCH in "ONE WAY" position
(1 COMMON 2.ONE WAY 3.ROUND TRIP 4.CONTINUOUS)
S804-1~7: DECK OPERATION SWITCH
(1 PAUSE 2. REVERSE 3.STOP 4.REWIND 5.FAST FORWARD
6 RECORD 7.FORWARD)
SF1~4 :FUNCTION SELECTOR SWITCH in "AUX" position.
(1 COMMON 2.AUX 3.TAPE/MIC 4.PHONO 5.RADIO)
SB1~12 :BAND SELECTOR SWITCH in "MW" position.
(1 COMMON 2.FM AUTO 3.FM MONO 4.MW)
ST1~12 :REC/PLAY SELECTOR SWITCH in "PLAY" position
RL1-1~2, 2-1~2 : P.B HEAD SELECTOR SWITCH in "FORWARD" position.

2) Letters J, K, M, Z indicate tolerance of capacitors as follows.
$J:\pm 5\%$ $K:\pm 10\%$ $M:\pm 20\%$ $Z:{}^{+80\%}_{-20\%}$

3) DC voltages are to be measured with DC VTVM under no signal condition in FM, AM or LW position.

IMPORTANT SAFETY NOTICE

THE ⚠ MARK ON THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR SAFETY.
WHEN SERVICING IT IS ESSENTIAL THAT ONLY MANUFACTURER'S SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS MARKED ⚠ IN THE SCHEMATIC.

CIRCUIT BOARD AND WIRING C

IC201

PIN NO	1	2	3	4	5	6	7	8
AM	0.8V	0 V	2.6V	5.9V	0.8V	0 V	0.9V	7.3V
FM	0.8V	0 V	2.4V	5.4V	2.5V	0V	1.1V	6.7V
PIN NO	9	10	11	12	13	14	15	16
AM	7.9V	1.5V	0.8V	8.1V	0.7V	1.5V	8.1V	0.7V
FM	0.8V	1.2V	0.8V	0.8V	0.5V	0.8V	0.8V	0.5V

IC701

1	2	3	4	5	6	7	8
0V	0V	0V	-1.3V	-25V	0V	0V	24.4V
9	10	11	12	13	14	15	16
25V	0V	0V	-25V	-1.3V	0V	0V	0V

Q901

B	15V
C	20V
E	14.5V

Q101

G	0.1V
D	6.9V
S	0V

Q102

B	1.4V
C	9.6V
E	0.7V

Q103

B	2.3V
C	7.1V
E	1.7V

Q203

	AM	FM
B	0.6V	0V
C	0V	1.0V
E	0V	0V

IC601

1	1.3V
2	0.7V
3	3.8V
4	8V
5	0V
6	3.8V
7	0.7V
8	1.3V

IC401, 402

1	2	3	4	5	6	7
10mV	10mV	10mV	2.7V	2.7V	0V	0V
8	9	10	11	12	13	14
17.2V	0.4V	0.4V	0.4V	0.4V	0.5V	10mV

Q835, 836

B	0.8V
C	15.7V
E	0.1V

Q902

B	16.9V
C	--
E	16.2V

Q831

B	40mV
C	12.8V
E	0V

Q832

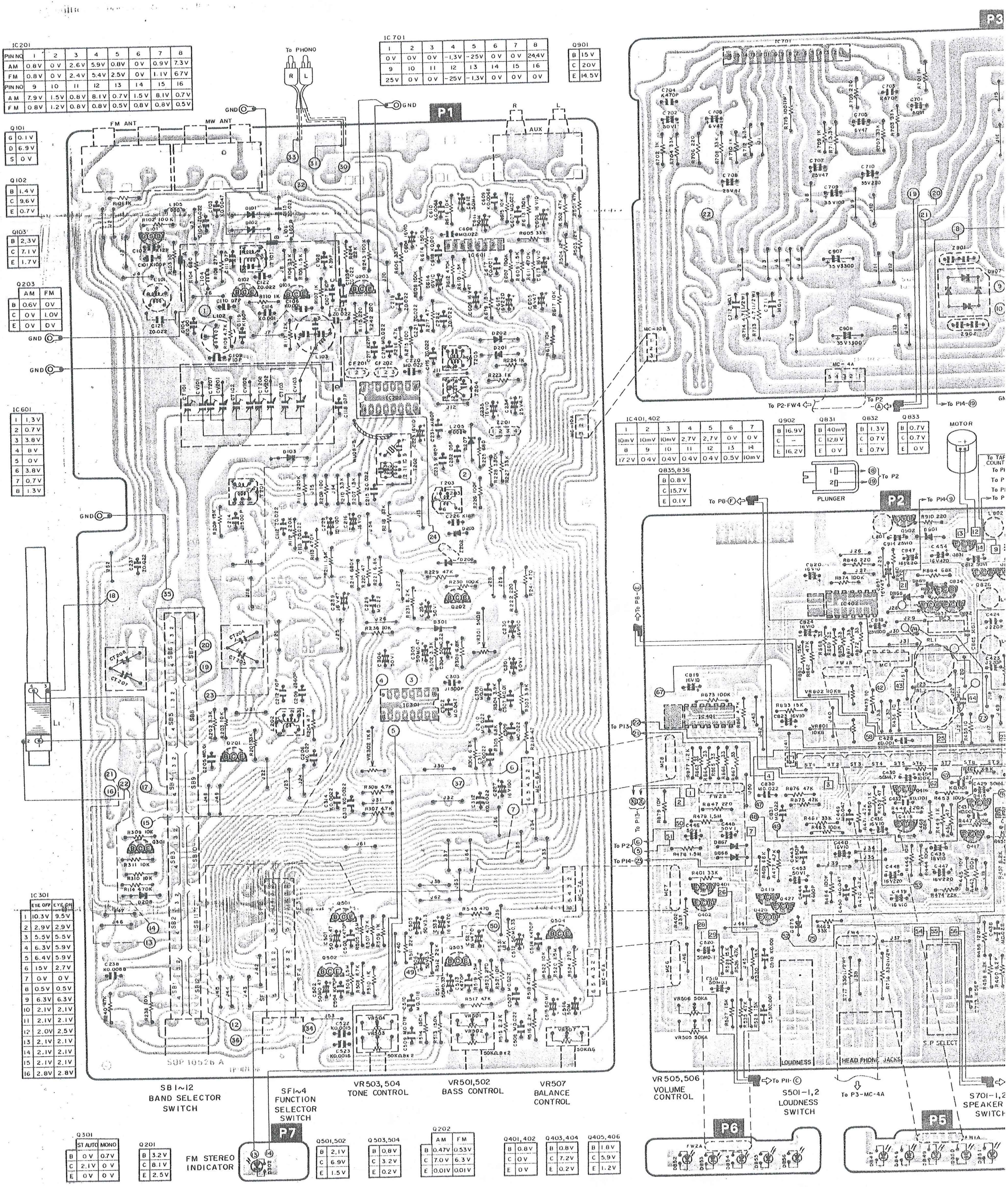
B	1.3V
C	0.7V
E	0.7V

Q833

B	0.7V
C	0.7V
E	0V

IC301

	EYE OFF	EYE ON
1	10.3V	9.5V
2	2.9V	2.9V
3	5.5V	5.5V
4	6.3V	5.9V
5	6.4V	5.9V
6	15V	2.7V
7	0V	0V
8	0.5V	0.5V
9	6.3V	6.3V
10	2.1V	2.1V
11	2.1V	2.1V
12	2.0V	2.5V
13	2.1V	2.1V
14	2.1V	2.1V
15	2.1V	2.1V
16	2.8V	2.8V


To PHONO
R
L
GND
P1
FM ANT
MW ANT
R
L
AUX
P3
IC701
MC-4A
To P2-FW4
To P2 -Ⓐ
To P14-⑲
MOTOR
PLUNGER
To P2
To P8-Ⓕ
P2
To P14-⑨
To P8-Ⓔ
To P13
To P2
To P14
L1
SUP 10526 A
SB1~12
BAND SELECTOR
SWITCH
SF1~4
FUNCTION
SELECTOR
SWITCH
VR503, 504
TONE CONTROL
VR501, 502
BASS CONTROL
VR507
BALANCE
CONTROL
VR505, 506
VOLUME
CONTROL
To P11-Ⓒ
S501-1, 2
LOUDNESS
SWITCH
To P3-MC-4A
S701-1, 2
SPEAKER
SWITCH
LOUDNESS
HEAD PHONE JACKS
S.P SELECT
P7
FM STEREO
INDICATOR
D302
P6
P5

Q301

	ST AUTO	MONO
B	0V	0.7V
C	2.1V	0V
E	0V	0V

Q201

B	3.2V
C	8.1V
E	2.5V

Q501, 502

B	2.1V
C	6.9V
E	1.5V

Q503, 504

B	0.8V
C	3.2V
E	0.2V

Q202

	AM	FM
B	0.47V	0.53V
C	7.0V	6.3V
E	0.01V	0.01V

Q401, 402

B	0.8V
C	0V
E	0V

Q403, 404

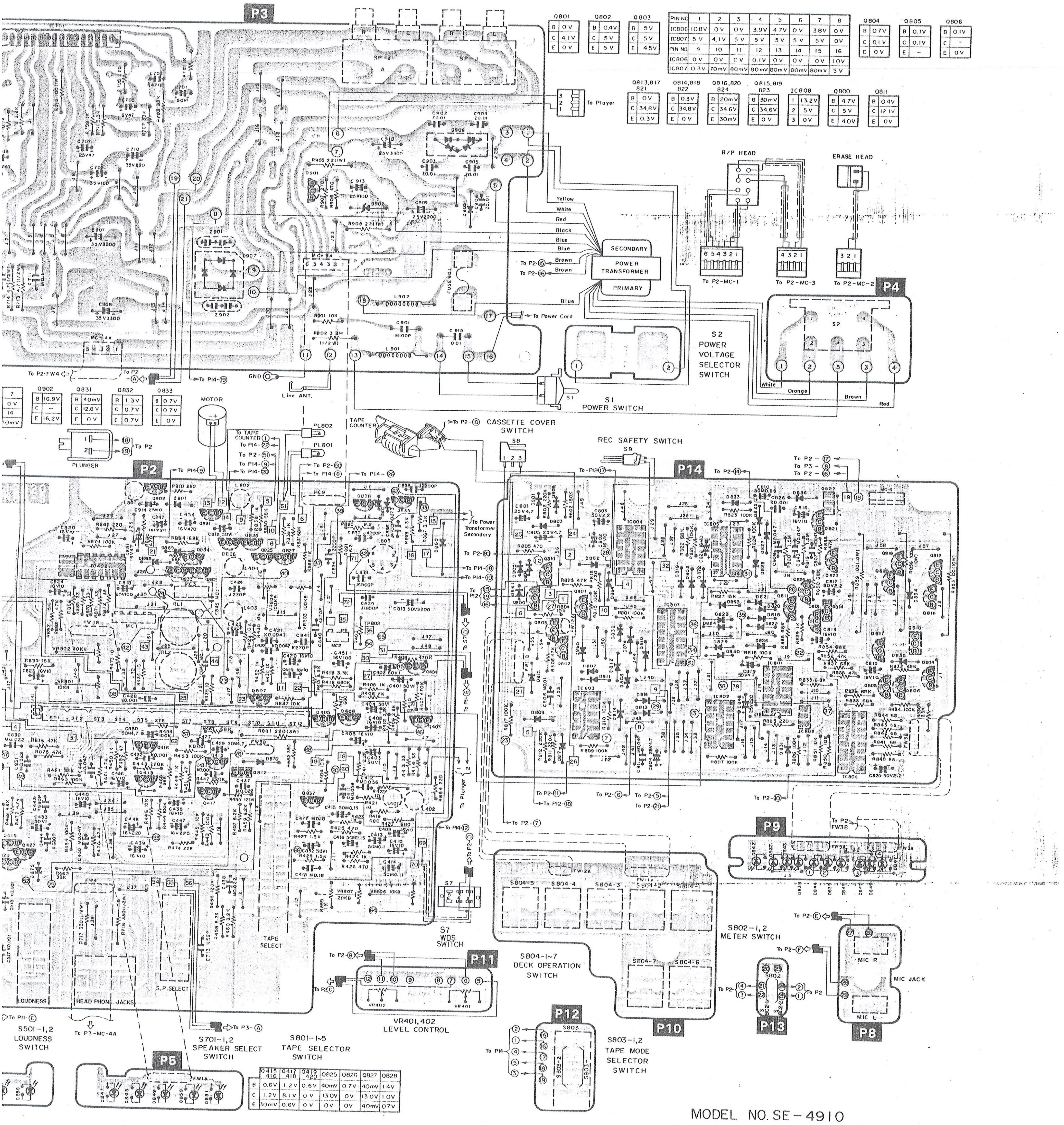
B	0.8V
C	7.2V
E	0.2V

Q405, 406

B	1.8V
C	5.9V
E	1.2V

***This diagram might be modified without notice for further development of technology.**

BOARD AND WIRING CONNECTION


P3
P2
P14
P4
P9
P10
P11
P12
P13
P8
P5
To Player
R/P HEAD
ERASE HEAD
Yellow
White
Red
Block
Blue
Blue
Brown
Brown
Blue
SECONDARY
POWER TRANSFORMER
PRIMARY
To P2-⑮
To P2-⑯
To Power Cord
To P2-MC-1
To P2-MC-3
To P2-MC-2
S2 POWER VOLTAGE SELECTOR SWITCH
White
Orange
Brown
Red
S1 POWER SWITCH
GND
Line ANT.
To P2-FW4
To P2 -Ⓐ
To P14-⑲
MOTOR
PLUNGER
To P2
To TAPE COUNTER
PL802
PL801
TAPE COUNTER
To P2-⑩
CASSETTE COVER SWITCH
S8
REC SAFETY SWITCH
S9
To Power Transformer Secondary
To Plunger
S7 WDS SWITCH
TAPE SELECT
LOUDNESS
HEAD PHONE JACKS
S.P. SELECT
S501-1,2 LOUDNESS SWITCH
To P3-MC-4A
S701-1,2 SPEAKER SELECT SWITCH
To P3-Ⓐ
S801-1~5 TAPE SELECTOR SWITCH
VR401,402 LEVEL CONTROL
VR401
VR402
S804-1~7 DECK OPERATION SWITCH
S804-1
S804-2
S804-3
S804-4
S804-5
S804-6
S804-7
S803-1,2 TAPE MODE SELECTOR SWITCH
S803
S802-1,2 METER SWITCH
S802
MIC R
MIC L
MIC JACK
To P2-Ⓔ
To P2-Ⓕ
7
0 V
14
10mV

Q801	
B	0 V
C	4.1 V
E	0 V

Q802	
B	0.4V
C	5 V
E	5 V

Q803	
B	5 V
C	5 V
E	45V

PIN NO	1	2	3	4	5	6	7	8
IC806	10.8V	0 V	0 V	3.9V	4.7V	0 V	3.8V	0 V
IC807	5 V	4.1V	5 V	5 V	5 V	5 V	5 V	0V
PIN NO	9	10	11	12	13	14	15	16
IC806	0 V	0 V	0 V	0.1V	0 V	0 V	0 V	1.0V
IC807	0.3V	70mV	80mV	80mV	80mV	80mV	80mV	5 V

Q804	
B	0.7V
C	0.1 V
E	0 V

Q805	
B	0.1V
C	0.1V
E	–

Q806	
B	0.1V
C	–
E	0V

Q813,817 821	
B	0V
C	34.8V
E	0.3V

Q814,818 822	
B	0.3V
C	34.8V
E	0 V

Q816,820 824	
B	20mV
C	34.6V
E	30mV

Q815,819 823	
B	30mV
C	34.6V
E	0 V

IC808	
1	13.2V
2	5 V
3	0V

Q800	
B	4.7V
C	5 V
E	4.0V

Q811	
B	0.4V
C	12.1V
E	0V

Q902	
B	16.9V
C	–
E	16.2V

Q831	
B	40mV
C	12.8 V
E	0 V

Q832	
B	1.3V
C	0.7V
E	0.7V

Q833	
B	0.7V
C	0.7V
E	0 V

	Q415 416	Q417 418	Q419 420	Q825	Q826	Q827	Q828
B	0.6V	1.2V	0.6V	40mV	0.7V	40mV	1.4V
C	1.2V	8.1V	0 V	13.0V	0V	13.0V	1.0V
E	30mV	0.6V	0 V	0V	0V	40mV	0.7V

MODEL NO. SE-4910